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BEATING DISEASE



a quick-read guide to protecting yourself



plan-it health
explore health and wellness



Why Read This Book?

The World Health Organization once defined health as “the absence of disease or infirmity” as well as a “state of complete physical, mental, and social well-being.” Finding this too lofty and unrealistic, *The Lancet* medical journal proposed a new definition for today’s world: health is the ability to adapt to one’s environment.

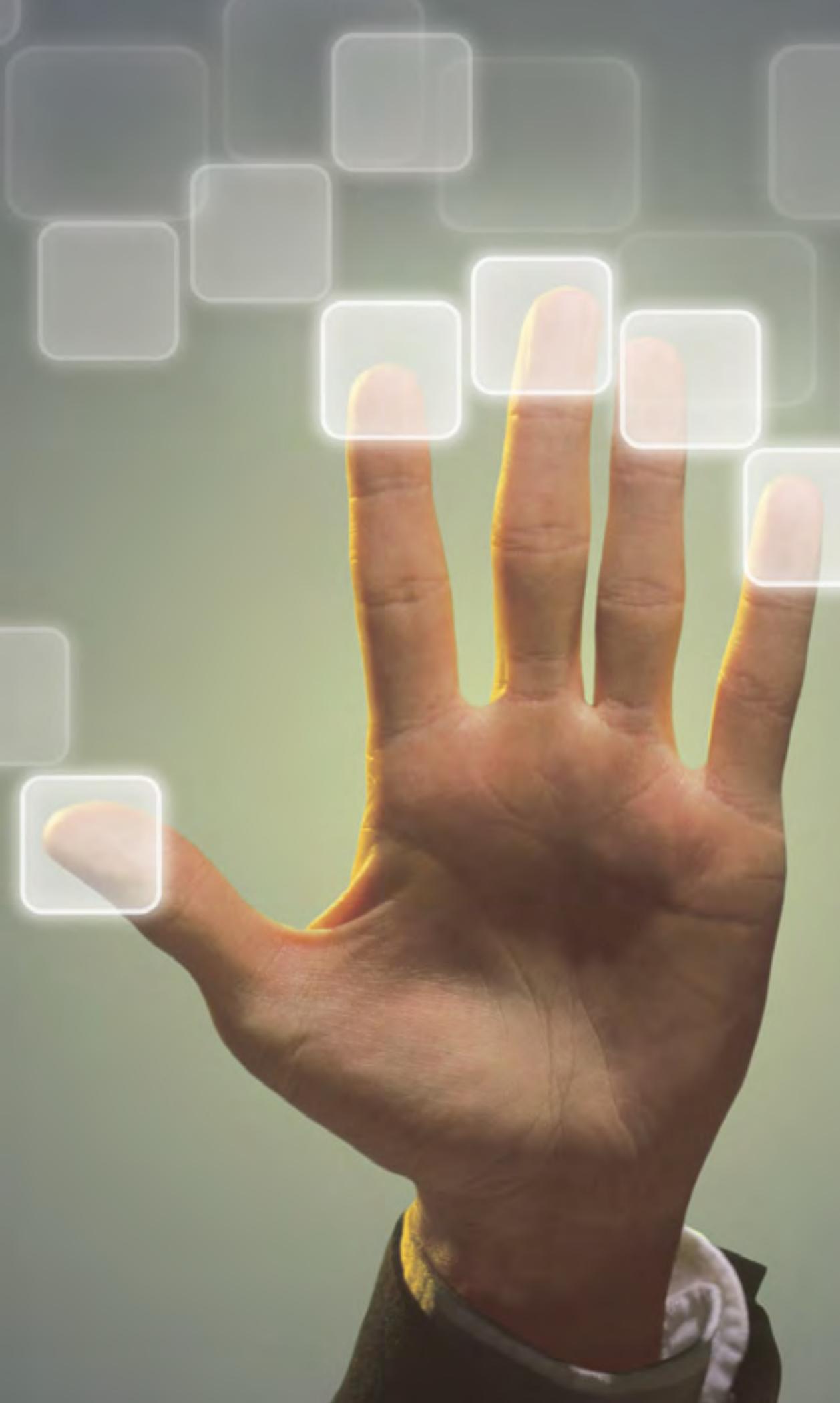
The beauty of this updated definition is that it recognizes the importance of physical, mental, and emotional resilience in meeting the challenges of life. It also takes into account the health of the environment and the social context in which people live, factors that are inextricably linked to their physical, mental, and emotional well-being.

People used to believe that their fate was written into their genes and that their health was determined by their family’s medical history. But the exciting new field of epigenetics has turned that notion on its head. Researchers are discovering that the environment in which a cell lives controls the expression of its genes. This means that you’re not at the mercy of your genes: it is within your power to provide the cells that make up your body with a healthy, nurturing environment that reduces the risk of disease and increases well-being.

Your body has the amazing ability to heal itself. When you’re injured or exposed to viruses and bacteria, the immune system goes into action, defending your body against invaders and restoring normal tissue structure and function. Health problems typically start only when you put barriers in the way of these normal healing processes.

Improving your health starts with determining what these barriers are and working to remove them. Remember the definition of health as adaptability. If you can’t adapt to a condition or situation, what needs to change so that you can?

That’s what this book is about. The benefits of taking ownership of one’s personal health can clearly be seen in the vitality of those who have chosen a healthy lifestyle. Read on to gain the knowledge and tools you need to make the right choices so that you can build up resilience and adapt to whatever life brings you.



Beating Disease

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Your Best Defence Against Disease

Lifestyle has emerged as the key factor in health and wellness. Over and over again, studies show that the solution to specific health problems is a return to a healthy lifestyle. A health-promoting way of life includes a whole foods diet rich in plant foods; exercising and moving your body; dealing with stress and enriching your relationships; and avoiding toxic compounds and harmful environments.

Eating right means enjoying fresh whole foods. As Michael Pollen says in his recent book, *In Defense of Food*, it can all be summed up in one phrase: "Eat food, not too much of it, and mostly plants." When Pollen refers to food, he means natural whole foods that come straight from the earth, and not the processed, chemical-laden foods that are the mainstay of the standard North American diet. We in North America also have a tendency to overeat. Cutting back on calories is the only scientifically proven way to extend the average lifespan of both animals and people.

Being active is one of the joys of life, and it is how we were meant to live. Our bodies were designed to exercise and move, and this is vital to keeping things in good working order. According to the Centre for Disease Control and Prevention, regular physical activity can improve health in the following ways:

- ✓ It reduces the risk of premature death.
- ✓ It reduces the risk of death from heart disease.
- ✓ It reduces the risk of diabetes, high blood pressure and colon cancer.
- ✓ It reduces feelings of depression and anxiety and enhances psychological well-being.
- ✓ It helps control weight and increases strength and agility.
- ✓ It helps build and maintain healthy bones, muscles, and joints.

Dealing with stress is a part of life. We all have triggers that stimulate the stress response, a vital reaction of the body to

“Over and over again, studies show that the solution to specific health problems is a return to a healthy lifestyle.”

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protect itself in times of danger. When we are flexible and adaptable we move in and out of the stress response as needed, but we spend most of our time in the resting, healing, and growing mode. Those stuck in a stressed state wear down their energy reserves and impair their immune defences.

Healthy environments are where we should strive to live. Start by reducing the assault on your own body by things such as smoking, excess alcohol or drug use, and exposure to pollution and pesticides. The health of our bodies is a reflection of the health of the environment in which we live.

The various systems of the body operate together in symphony to make our bodies work. These systems include respiration, digestion, circulation, elimination, communication, and defence systems. They are all important, but the digestive and immune systems are the foundation of our health and well-being.

The digestive system processes all our foods and nourishes the entire body. When it is not balanced and working well, the whole body suffers. Our digestive system can become a source of toxic compounds that may be absorbed and interfere in the activity of other cells and tissues. The gut contains a large proportion of the immune system and depends on the good bacteria there to work properly.

The immune system is a network of cells, tissues, and organs that work together to defend the body against attacks by invaders such as microbes—tiny organisms such as bacteria, parasites, and fungi—and viruses. It's the immune system's job to keep them out or, failing

that, to seek them out and destroy them.

This book is meant to guide you towards a healthier lifestyle, reducing your risk for chronic disease and increasing your longevity and sense of wellness. It is definitely a lifelong journey and we should always be doing what we can to nurture ourselves. You may find it all overwhelming at first, but as Lao Tzu said, "a journey of a thousand miles must begin with a single step." You're already on the journey; why not take the healthy way?

Resources:

<http://www.cdc.gov/HEALTHY-PLACES/healthtopics/physactivity.htm>

Inside the immune system

The immune system is incredibly complex. It can recognize and remember millions of different enemies, and it can produce compounds and cells to latch onto and wipe out nearly all of them. The secret to its success is an elaborate and dynamic communications network. Millions and millions of cells, organized into sets and subsets, gather like clouds of bees swarming around a hive and pass information back and forth in response to an invader. Once the immune cells receive the alarm, they begin to produce powerful chemicals. These substances allow the cells to regulate their own growth and behavior, enlist other immune cells, and direct the new recruits to trouble spots.

A healthy immune system has the remarkable ability to distinguish between the body's own cells, recognized as "self," and foreign cells, or "non-self."



The body's immune defences normally coexist peacefully with cells as long as they carry distinctive "self" marker molecules. But when immune defenders encounter foreign cells or organisms that don't carry such markers, they quickly launch an attack. A crippled immune system leaves the body vulnerable to serious diseases such as cancer.

Autoimmune diseases result when the immune system malfunctions and mistakes self cells for non-self. The body begins to attack itself and destroys its own cells. Among the most common autoimmune diseases are type 1 diabetes, celiac disease, Crohn's disease, Graves' disease, Guillain-Barré syndrome, lupus, multiple sclerosis, rheumatoid arthritis, ulcerative colitis, vasculitis, and several skin diseases, including psoriasis and scleroderma. The precise cause of autoimmune disorders isn't fully understood, but some of them appear to be linked to exposure to environmental toxins. Infection, tissue injury, or emotional trauma can also set off autoimmune reactions in people with a genetic predisposition. Food allergies, poor digestion, vaccinations, mercury fillings, and drugs are other possible culprits.

There is mounting evidence that the immune system and the nervous system are linked in many ways. One of the primary connections involves the adrenal glands. When you encounter stress, your adrenal glands release hormones into the blood to mobilize your body's energy reserves. Stress hormones divert valuable energy and nutrients away from the immune system and digestive system to the muscles in order to provide immediate protection. Ongoing stress leads to immune and digestive problems.

The immune system is affected by every aspect of life, especially diet, rest, and the ability to cope with stress, grief, and daily challenges. It's also continually developing and evolving. For example, North America's Aboriginal peoples were nearly wiped out by diseases they'd never encountered before and yet which no longer posed a threat to the Europeans who brought them. Training the immune system to function naturally so that it can learn to recognize and fight new threats is therefore critical to maintaining and restoring health.

Simple habits can bolster your body's defenses and enable you to better fight infectious illness, cancer, allergies, and autoimmune diseases. Keeping the vital organs healthy through regular physical activity, adequate rest, and stress management provides a sound basis for a strong immune system. Ensuring proper elimination of toxic waste by helping the body's detoxification processes and supporting the kidneys with sufficient fluid intake is important, as well.

You can also take much of the load off your immune system health by eliminating preventable risk factors, such as smoking and eating junk food, and by practicing good hygiene. Replacing a bad habit with a good one may not be as difficult as you think, provided you believe in what you're doing and take on goals that are realistic.

Don't wait until you have a serious health problem to make the switch to a healthier lifestyle. Although the natural strength of the body can be restored even after illness has set in, most diseases are much easier to prevent than they are to treat.



Don't Smoke



Eat Right



Be Active



Emotional



Prevent disease seven ways

Self-Care



Relationships



Fatigue



Biomarkers





Don't Smoke

...the number one way to improve your health

If you're a smoker, the single best thing you can do to prevent disease is to quit smoking as soon as you can. Smoking harms nearly every organ of the body and is directly linked to many severe health problems. These include more than a dozen different types of cancer, chronic respiratory ailments, and cardiovascular diseases.

Smoking puts a huge strain on your heart and blood vessels, causing fatty plaque buildup that can lead to heart attack and stroke. The nicotine and carbon monoxide found in cigarette smoke raises your blood pressure, poisons your muscles and brain, and slows circulation and oxygen supply to your hands and feet (in extreme cases, some smokers may even require amputation). Smoking 20 cigarettes a day dumps a full cup of tar into your lungs each year, coating these delicate organs much like soot in a chimney and putting you at high risk of lung cancer as well as chronic obstructive pulmonary disease. Smoking during pregnancy also increases the danger of a miscarriage or having a premature or underweight baby.

Having even a few cigarettes a day can seriously damage your health. If you try to smoke fewer cigarettes instead of quitting completely, you'll soon be smoking the same amount again. Smoking so-called "low-tar, low-nicotine" cigarettes won't do much good, either. Because nicotine is so addictive, you'll likely just puff harder, longer, and more often on each cigarette when you switch to lower-nicotine brands.

The only safe choice is to quit completely. Quitting has immediate as well as long-term benefits, reducing risks for diseases caused by smoking and improving health in general. Statistics show that half of all adult smokers who try to quit succeed. There are millions of people alive today who've learned to face life without a cigarette and will now enjoy a longer, healthier life as a result.

Smokers who survive a heart attack are most likely to quit for good: they're highly motivated. Find a reason for quitting before you have no choice. It's even a good idea to write down why you want to quit. Do you want to feel in control of your life,

“Millions of people alive today learned to face life without a cigarette.”

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enjoy better health, set a good example for your children, protect your family from breathing in secondhand smoke, or all of the above? Review any past attempts to quit. Think about what did and didn't work—and why.

Know that it will take effort to quit smoking, since nicotine is extremely habit forming. It causes temporary changes to occur in your brain chemistry so that you experience decreased anxiety, enhanced pleasure, and increased alertness. That's why it feels good when you smoke. Nicotine replacement products and other smoking cessation aids, research suggests, can double your chances of quitting and quitting for good.

Still, there's no easy way to quit. Nearly all smokers have some feelings of nicotine withdrawal when they try to quit, including irritability, anxiety, difficulty concentrating, insomnia, restlessness, and increased appetite. Give yourself a month to get over these feelings. Take quitting one day at a time, even one minute at a time—whatever you need to succeed. You may find counseling helpful for handling the stress of quitting.

In order to quit for good, you'll need to learn new skills and behaviors. Try to

dampen your urge for a smoke by replacing old smoking triggers with a different set of daily patterns. Talk to someone, go for a walk, or get busy with a task during times when you used to smoke. Eat breakfast in a different place. Drink tea instead of coffee (but whatever you drink, be sure to take in a lot of water to help clear out your respiratory passageways). Change your routines, for example by taking a different route to work.

Most smokers report that one reason they smoke is to handle stress. Stress is also one of the major factors known to cause a relapse in smokers, even after prolonged periods of a smoke-free lifestyle. After you quit smoking, handling the normal stresses in your life may become more of a challenge and you may find yourself becoming more aware of stress. This happens because smoking cigarettes actually relieves some of your stress by releasing powerful chemicals in your brain. Quitting smoking itself is stressful and adds to your stress load.

Work to build your stress resilience. One of the best ways to deal with stress is to start an exercise program. An added bonus of exercise is that it counters many of the negative physical effects of smoking. It increases the circulation of oxygen



and nutrients to your cells and helps remove waste products. It also reduces cholesterol and blood pressure, helping to lower your risk of heart disease and stroke. Find an activity you enjoy and make it part of your schedule.

In addition, try some relaxation methods and stick with the one that works best for you, such as taking hot baths, walking in nature, or progressive muscle relaxation. Rehearse and visualize your relaxation plan, then put it into action. Change your plan as needed. You may find it helpful to visit your library or

bookstore to pick up a book about how to handle stress. As you go longer without smoking, you'll find it easier to cope, especially if you learn to implement these self-care techniques.

Go to Plan-it Health (www.cutrust.com) to start preventing disease now:

- ✓ Read "Quit Smoking" in the Self-Care & Prevention menu.
- ✓ Read "Identifying & Reducing Stress" under "Stress & Anxiety" in the Mental/Emotional Health menu.
- ✓ Do the "Self-Test: What is Your Level of Stress?" under "Stress & Anxiety" in the Mental/Emotional Health menu.
- ✓ Take the "Reduce Stress Workshop" under "Stress & Anxiety" in the Mental/Emotional Health menu.
- ✓ Watch "Stop Smoking in 6 Minutes" under "Addiction" in the Micro Video Library menu.





Eat Right For Good Digestive Health

...let food be your medicine and your medicine be your food

Healthy food choices foster vibrant health and help prevent disease. As a general rule, you should eat more fruit, vegetables, and foods high in good fats and reduce your intake of meats and processed foods.

Dr. T. Colin Campbell conducted the most extensive research ever done on human nutrition. Early in his career as a researcher, he promoted the benefits of high-quality animal protein, such as meat, milk, and eggs. But while studying malnutrition in the Philippines, he discovered that children who ate the highest protein diets were the most likely to get liver cancer. This prompted him to launch an in-depth study of diseases and lifestyle factors in rural China. The results were startling: people who ate the most animal-based foods got the most chronic diseases, while people who ate the most plant-based foods were the healthiest and tended to avoid chronic disease.

Plants have nutrients in them that protect the body from major killers such as heart disease, cancer, and many other premature degenerative diseases. Nutrients such as vitamins, minerals, proteins, carbohydrates and fats, including essential fatty acids, are the natural components of foods. According to Dr. Campbell, “the vast majority, perhaps 80 percent to 90 percent, of all cancers, cardiovascular diseases, and other forms of degenerative illness can be prevented, at least until very old age, simply by adopting a plant-based diet.”

Eating right starts with retraining your taste buds. Dr. Campbell recommends a whole-food, plant-based diet containing fruit and vegetables, grains, beans, nuts, and seeds. Leafy greens are especially important, as they contain so many easily absorbable plant proteins and vital minerals. A healthy body naturally desires these nutritious whole foods, and the diversity of flavors in them should convert you to a more wholesome way of eating.

But eating is only the first step in getting nourishment from the foods you consume. Everything you eat, including essential disease-fighting nutrients, must be processed by the digestive system before the body can benefit.

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“A study in rural China showed that people who ate the most plant-based foods were the healthiest.”

The digestive system requires rest and relaxation to be at its best. So set aside a special time and place for meals in a clean, harmonious environment. Eat when you're calm and unrushed. Avoid eating during peak liver detoxification activity, which is between 1 p.m. and 3 a.m. Eat breakfast regularly to keep your blood sugar balanced and have your dinner early in the evening, preferably before 6:00 p.m. Drink plenty of water or herbal tea an hour before and after meals to promote regularity and the elimination of toxins.

Besides helping to extract vital sustenance from the foods you eat, the digestive tract is also home to cells connected with the immune system. Some experts believe that by altering the microorganisms in your digestive tract, you can help bolster your immune system's defenses.

One way of doing that is to introduce live microorganisms called probiotics, also known as "friendly" or "good" bacteria. Probiotics are available to consumers mainly in the form of dietary supplements and fermented dairy products such as yogurt and kefir, fermented vegetables such as olives and sauerkraut, and fermented soy products such as miso and tempeh.

Each individual's mix of good bacteria varies. A healthy colonization of probiotic bacteria, including acidophilus and bifidus strains, are crucial to a person's health and well-being. Good bacteria are essential for the proper digestion of your food and produce B vitamins and vitamin K, as well as aiding in the development and healthy function of the immune system.

Hydrochloric acid in the stomach is also vital for digesting protein and killing offending organisms. This acid, which can decrease with age or the use of antacid medication, also stimulates the release of digestive enzymes into the intestines. These enzymes are needed to break down food, and a lack of them often causes digestive and absorption problems.

Digestive enzymes can be replenished by eating raw or lightly steamed natural foods, which provide the very enzymes needed for their own digestion. In addition, the more thoroughly food is digested before it reaches the small intestine, the less demand is placed on the body to produce enzymes. Chew food thoroughly to stimulate the digestive enzymes in saliva so that food is already partially broken down before it reaches the stomach.

A high-fiber diet also helps to improve digestion by regulating bowel function. Fiber has been shown to reduce colon

and rectal cancers due to its laxative and cleansing effect on the colon. Foods high in fiber include whole grains, seeds, legumes, fruit, and vegetables. Ground flaxseed is an especially good form of fiber that also contains valuable omega-3 fatty acids and lignans that reduce the risk of some cancers.

Here are some basic guidelines to help you get the most nutrition out of the foods you eat.

1. Decrease overall fat consumption.

Limit your total fat intake to between 15 and 25 percent of your daily caloric intake for optimal physiological functioning. Use cold-pressed, unrefined vegetable oils rich in essential fatty acids. Eliminate the use of hydrogenated fats such as margarine and vegetable shortening, as well as beef fat; use butter in moderation and cold-pressed oils instead. Good sources of essential fatty acids include cold-water fish, cold-pressed flaxseed, pumpkin seed, grape seed, walnut, and sesame oil. For cooking, use coconut oil.

2. Eat less animal-source proteins and more vegetable-source proteins.

Make vegetarian dishes that combine legumes (e.g. garbanzo beans, kidney beans, lentils, lima beans, navy beans, soybeans, split peas) with whole grains (e.g. barley, brown rice, buckwheat, millet, oatmeal, quinoa, rye, wheat germ, hard red wheat, wild rice) and nuts and seeds (e.g. almonds, cashews, filberts, hemp seeds, peanuts, pumpkin seeds, sesame seeds, sunflower seeds, walnuts) to increase their protein value.

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3. Restrict refined sugar intake.

Use small amounts of honey, maple syrup, fruit, fruit juice, and molasses instead of refined sugar.

4. Increase your intake of high-fiber foods.

Whole grains, fruit, vegetables, nuts, and seeds are loaded with soluble and insoluble fibers that help to balance blood-sugar levels, preventing diabetes. Meat and oils contain no fiber.

5. Replace refined grains with whole grains.

Eat brown rice instead of white rice. Use stone-ground whole-grain flour instead of refined white flour. Choose whole-grain cereals instead of refined cereals.

6. Go organic.

Choose local, organically grown foods whenever possible. In so doing, you'll avoid the health risks associated with the use of toxic sprays, hormones, antibiotics, and pesticides.

7. Avoid refined foods that contain additives and artificial ingredients.

Choose natural, whole foods. Use fresh vegetables instead of canned and frozen vegetables.

8. Eat a wide variety of unrefined, whole foods.

Choose from a selection of whole grains, beans and legumes, soy foods, cultured yogurt, fresh fruit and vegetables, and sea vegetables such as kelp.

9. Increase your intake of fruit and vegetables, and eat them raw if possible.

Consume at least three servings a day of a variety of vegetables, including dark leafy greens. Eat two to four servings a day of fresh, raw fruit. Enjoy a raw vegetable salad daily. Learn to grow sprouts at home and eat a serving every day.

10. Avoid overcooking.

Lightly steam or sauté vegetables so they don't lose most of their nutritive value. Try to make raw foods, such as salads, a significant part of your diet.

11. Decrease your intake of salt (sodium chloride).

Replace table salt as your preferred seasoning with herbs and spices. Try using sea vegetables as a salt substitute. Eat raw fruit and vegetables instead of salty snacks.

12. Add sea vegetables to your diet.

Develop a taste for seaweeds such as nori, wakame, hijiki, kelp, and dulse. Add sea vegetables to soups, salads, and casseroles. Try eating dulse as an occasional snack food.

13. Eat less meat and eat healthier forms of it.

Reduce your overall intake of meat. Choose organic, wild, or grass-fed sources whenever possible, and lean cuts with all visible fat removed. Eat a large vegetable salad before eating meat, and broil your meats instead of frying them.

14. Include naturally fermented foods in your diet.

Learn to make your own yogurt, kefir, quark, and sauerkraut. Use fermented dairy products instead of milk. Add unpasteurized fermented soybean paste (miso) to sauces, gravies, soups, and stews after cooking, since heat destroys friendly bacteria.

15. Eat breakfast regularly, a larger lunch, and a lighter dinner earlier in the day.

A nutritious, whole-foods breakfast should be the mainstay of your diet. Lunch provides nourishment for the afternoon and should be larger than both breakfast and dinner. Eat a lighter meal for dinner and avoid calorie-laden or sugary evening snacks: a heavy meal late in the day can contribute to fatigue and sleep problems.

Go to Plan-it Health (www.custrust.com) to start preventing disease now:

- ✓ Take the "Eating 101 Workshop" in the Eating Well menu.
- ✓ Do the "Assess Eating Habits" self-assessment.
- ✓ Watch the videos under "Eating" and "Nutrition" in the Micro Video Library menu.
- ✓ Use the "Calorie/Nutrition Counter" and "Meal Planner" in the Eating Well menu.
- ✓ Peruse the "Healthy Recipes" in the Eating Well menu.

Reference:

Harvard Medical School Family Health Guide <http://www.health.harvard.edu/fhg/updates/update0905c.shtml>





Be Active

... just do it

Whatever your physical or mental condition, being physically active will improve it. Regular physical activity can prevent or delay the onset of many chronic diseases, including type 2 diabetes, heart disease, and stroke. Being physically active will also increase your energy and boost your mood, protecting you against serious mental illnesses such as depression and anxiety.

Physical activity increases circulation and removal of waste products in all tissues of the body. It also increases the supply of oxygen and nutrients to the body, helping cells to work as they should. Recent research has even shown that fitness levels are a better indicator of health and longevity than weight or body mass index (BMI). So rather than focusing on losing all that weight, change your focus to increasing your activity and fitness levels.

What's stopping you from being active? Maybe you think working out is boring, joining a gym is expensive, or adding another item to your to-do list is too much to ask. No matter what the obstacle, however, you can still find ways to make physical activity a fun and fulfilling part of your life.

There are five main barriers that keep people from being physically active: a lack of time, energy, motivation, and money; and fear.

1. 'I don't have time'

If you're too busy to exercise, then it's time to make physical activity a priority. Carve out some time each week to be active and mark it down on your calendar. Try waking up half an hour earlier to walk, scheduling lunchtime workouts, or taking an evening fitness class. Make family time more physically active. Plan a weekend hike through a park, a family softball game, or an evening walk around the block.

You can also build physical activity into routine chores, such as raking the yard, washing the car, and doing energetic housework. Park your car 15 minutes away and walk to work. You can do what you need to do and get a workout at the same time.

“Being physically active will increase your energy and boost your mood.”

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If you have young children and don't want to leave them alone, do something physically active together. Kids need physical activity, too. Dance to music, take a walk, run around the park, or play basketball or soccer with them. If you prefer to exercise without your kids in tow, try to find a fitness or community center that offers child care.

2. 'I don't have the energy'

Too tired to work out at the end of a long day? Start slowly if you need to and gradually build up your activity levels. You may find that yoga and stretching exercises are helpful for raising energy levels and getting you going. Make getting fit something fun. Play a team sport, work in your garden, or learn to dance. You can also sign up for a charity event: this enables you to help others in the process of helping yourself.

3. 'I don't feel like it'

If getting on a treadmill or stationary bike seems terribly boring, buddy up with a friend and exercise together. Your workout will go a lot more quickly with your buddy on the bike or treadmill next to you. Research has shown that working out with an exercise buddy helps to increase fitness levels, even if it's the four-legged kind whom you have to walk every day! You can also find motivation and camaraderie from connecting with exercise buddies over the phone or Internet. One website to check out is www.exercisefriends.com.

Other ideas to try are listening to music or an audio book while walking or pedaling. Or exercise outside: just being in nature and enjoying a change in scenery can keep things interesting.

If it's too hot or too cold outside to exercise, there are plenty of ways you can exercise inside. Enroll in a gym. Walk around the mall. Join a mall-walking group to walk indoors year-round. Enjoy swimming, racquet sports, dance, yoga, or tai chi. Or exercise at home by renting fitness videos from your local library.

4. 'It's too expensive'

Worried about the cost of a gym membership or workout gear? Physical activity doesn't have to cost a thing. Take your children to the park to play or go for a walk. Do activities that don't require any special gear: walking only requires a pair of sturdy shoes.

If your neighbourhood doesn't have sidewalks, walk during your lunch break at work or see if you can use a local school track. You can also work out in the yard or do physically demanding yard or housework: these count as physical activity, too.

5. 'I won't succeed'

Afraid you can't stick to a regular regimen and will ultimately disappoint yourself? Welcome to the club. Pull yourself out of it and commit to making your health and well-being a priority. With a little planning and a lot of determination, you can make changes that will greatly improve your quality of life.

Try keeping a log of all the time you spend on the TV or Internet in the course of a week. Commit yourself to taking at least 10 percent of that time to get up and move.

If you have a pre-existing health problem, ask your health-care provider what activities you can safely do and follow their advice. Go slowly initially,

and see how you feel before trying more challenging workouts. Stop if you feel out of breath, dizzy, faint, nauseated, or any kind of pain. You can also try working out with a personal trainer, who can help you design a fitness plan around your condition. Most health problems are alleviated, not aggravated, by physical activity.

If you've never been into sports, find a physical activity that you enjoy. You don't have to be a jock to benefit from exercise. Try yoga, hiking, or planting a garden. Choose something you can stick with, like walking. Use the time you spend walking to relax, talk with a friend or family member, or just enjoy the scenery.

Once you've identified your barriers, you can create a plan for becoming more active. Have concrete reasons for wanting to be physically active to help provide you with motivation. Do you want to be healthy, lose weight, de-stress, or all of the above? List the activities you'd like to do, such as walking, energetic yard or housework, joining a sports league, dancing, swimming, bicycling, or taking a class at a fitness or community center. Think about the sports or other activities that you enjoyed when you were younger. Could you enjoy one of these activities again?

List the days and times you could do each activity on your list, such as first thing in the morning, during your lunch break, after dinner, or on Saturday afternoon. Look at your calendar or planner to find the days and times that work best for you. Then take note of the people—your spouse, sibling, parent, or friends—who could support your efforts to become more physically active. Give them ideas about how they could be supportive, such

as offering encouraging words, watching your kids, or working out with you.

Last but not least, set a date to start getting active. The date might be the first meeting of an exercise class you have signed up for, or when you plan to meet a friend for a walk. Write the date on your calendar. Then, stick to it. Before you know it, physical activity will become part of your daily life.

Go to Plan-it Health (www.cutrust.com) to start preventing disease now:

- ✓ Read "Optimal Fitness Defined" in the Physical Activity menu.
- ✓ Read "Getting Fit at Work" in the Physical Activity menu.
- ✓ Do the "Assess Your Fitness" self-assessment in the Physical Activity menu.
- ✓ Watch the videos under "Exercise" in the Micro Video Library menu.
- ✓ Watch "Making Lifestyle Changes That Last" and the other videos under "Changing Behavior" in the Micro Video Library.

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1. "Cardiorespiratory Fitness and Adiposity as Mortality Predictors in Older Adults." And Xuemei Sui; Michael J. LaMonte; James N. Laditka; James W. Hardin; Nancy Chase; Steven P. Hooker; Steven N. Blair. *JAMA*. 2007;298(21):2507-2516.
2. "Project IMPACT: brief report on a pilot programme promoting physical activity among university students." Cholewa S., Irwin JD. *J Health Psychol*. 2008 Nov;13(8):1207-12.



Practice Mental & Emotional Self-Care

...to keep stress at bay

Emotions communicate important messages to you about your current situation. They also impact your health by unleashing powerful physiological responses and by influencing the lifestyle choices you make. Thus learning to understand and regulate your emotions is crucial to preventing both physical and mental illness.

Most emotions come from thoughts, so being aware of and controlling your thoughts has an important bearing on how you feel. Consider the following example. While driving to an important meeting, you have a flat tire. Your first thought is, “Why does this always happen to me?” Then you picture yourself arriving late at the meeting and making a terrible impression. Your anxiety builds as you struggle with the jack. You think, “No one is stopping to help: people are so uncaring.” You get so worked up that by the time you finally arrive at the meeting, you take out your anxiety on your co-workers—not because you’re late, but because of your hostile demeanor.

But extreme thoughts and inflamed emotions do more than affect your behavior. When you perceive any kind of danger or threat, your body triggers the stress response to help you fight, flee, or freeze to protect yourself. Blood and energy are diverted to your muscles and away from the digestive and immune systems, as these aren’t critical for immediate survival.

Chronic stress caused by extreme thoughts and inflamed emotions depresses the immune system and impedes digestive function, leading to many illnesses. Studies of people caring for relatives with Alzheimer’s, medical students taking exams, Army Rangers undergoing extremely grueling physical training, and couples experiencing marital crisis all suggest that struggling with chronic or high levels of short-term stress slows healing time and increases susceptibility to viral infections. In addition, a number of clinical and epidemiological studies have shown a strong association between psychosocial stressors

“Emotional self-regulation changes stress hormone levels and strengthens your immune system.”

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early in life, such as child abuse, and an increased risk of depression, anxiety, impulsive behavior, and substance abuse in adulthood.

You might have trouble dealing with extreme thoughts and inflamed emotions if you often feel overwhelmed by your feelings, are afraid of expressing your emotions; deny that you ever feel sad, angry, or hurt; don't know why you feel the way you do; or use alcohol or drugs to numb your emotions. These problems could stem from being told in the past that your feelings didn't matter, being treated in a way that didn't take your emotions into account, or never having your feelings validated.

The flipside is that by practicing mental and emotional self-care, you can help improve your physical and mental health. Through emotional self-regulation and stress management, you may be able to alter stress hormone levels to strengthen your immune system (a counselor can help you to learn how to do this). A phenomenon well-known among medical circles is that women with breast cancer who belong to a support group tend to live longer than those without such psychological support.

First, learn to identify your feelings. Some people are so out of touch with their emotions that they don't even know how they're feeling. One way to know is to "check in" with yourself. Stop what you're doing. Sit quietly for a few moments and take a few deep breaths. Focus on how your body feels. Do you feel tension anywhere? Are you holding your breath? Notice any emotions you're feeling: sadness, worry, happiness, fear, anger, loneliness, amusement. See whether your thoughts are racing. If you're feeling overwhelmed with an emotion, try using a relaxation technique to calm down, such as taking a walk or deep breathing; then check in again.

Second, get to know your stressors. Try to identify the things in your life that cause you stress: family conflict, financial problems, or health concerns. Once you identify and under-



stand how these stressors affect you, you can begin to figure out ways to address them.

Stress generally stems from a feeling of losing control. By getting worried or angry, you're able to temporarily regain a sense of power. For example, you may get angry when your children fail to follow your advice. Yelling at your children and making them feel guilty makes you momentarily feel in charge again. To truly reduce stress, you need to accept the things you can't control, such as your children making and learning from their own mistakes.

Third, manage your stress. Support groups, reaching out to a trusted friend, relaxation, prayer, meditation, and exercise are all tools you can use to handle stress. If nothing seems to work or you worry excessively about trivial matters, see a health-care provider. Bear in mind that chronic stress can be associated with mental-health conditions such as depression and anxiety as well as physical problems. Seek professional help if you have difficulty sleeping, changes in appetite, panic attacks, muscle tenseness and soreness, frequent headaches, gastrointestinal problems, or prolonged feelings of sadness or worthlessness.

Here are some more tips to help you identify and regulate your thoughts and emotions.

1. Keep a journal.

Use your online confidential journal or carry a small notebook with you. The next time you experience an extreme thought or inflamed emotion, imagine you are a newspaper reporter collecting facts. Immediately after the incident, write down what occurred, who you were with, where you were, and the thoughts that went through your mind before, during, and after the emotions you felt. Do this in private so you can think clearly. Observing and recording details enables you to use rational powers of objectivity and analysis, rather than relying on impulse and emotion.



2. Know the early warning signs.

If you struggle with inflamed emotions such as fear or anger, pay attention to their physical and mental symptoms (e.g., your face feels hot, your heart rate speeds up, you assume the worst about other people's motives, you get a general sense that things aren't right). Write these signals down in your journal. At first, you may not recognize them until after you've become overwhelmed with emotion. Over time, however, you'll notice them earlier and earlier.

3. Look for patterns.

What situations provoke you? See if you can identify common themes, such as being criticized, having your authority challenged, or feeling ignored. Ask yourself whether these themes remind you of other times in your life—especially childhood and adolescence, when many of our habitual reactions are formed. Exploring the roots of your thoughts and emotions helps you to be more objective, so that you're no longer at the mercy of your habitual responses. Some people find counseling helpful in uncovering the deeper sources of their emotions.

4. Create a safety plan.

On an index card, write down four things you can do that will help you calm down when you experience an extreme thought or inflamed emotion. Common techniques include breathing deeply, walking around the block, counting to 10, or calling a friend. Carry the card with you.

5. Call a time-out.

The moment you notice any of your warning signs, take a break and put your safety plan into action. If you're with other people, politely excuse yourself from the situation. For example, ask to take a short break. But keep your "exit strategy" simple: a scripted excuse is useless if you can't remember it under pressure.

6. Change what you're saying to yourself about the situation.

By changing the negative statements you make to yourself, you can change the way you feel about things. Replace "Why does this always happen to me?" with "I can cope with this situation."

7. Learn to express your emotions appropriately.

Emotions are expressed in many ways, including facial expression, body language, speech, tone of voice, and actions. It's important to make sure that you're expressing your emotions in the way you intend. Many people who have trouble regulating their emotions are misread or misunderstood by others, because they don't express their emotions the way most other people do. For example, if you smile and joke when you're sad, or appear quiet and somber when you're in an emotionally neutral state, people are likely to misinterpret your feelings. You may need to work with a counselor to help you learn to develop more effective ways of expressing emotions.

8. Develop assertiveness and problem-solving skills.

After learning why you feel the way you do, you may want to clarify a misunderstanding or correct a wrong using rational thought. You can do this by using assertive communication, negotiation, and problem-solving techniques. Clearly state how you feel, acknowledge the other person's point of view, assess and weigh options for action, and agree on a trial period for change. Courses in communication and negotiation skills are offered at YMCAs, community colleges, and as part of many adult education programs.

9. Find a source of spiritual strength.

Coming to terms with stress requires making peace with the fact that you can't control many parts of life: the economy, an unexpected illness or death, or other people's reactions. Spirituality can help you accept your limitations and embrace your need for connection. This doesn't necessarily mean adopting a religion. Many find spiritual solace in nature, meditation, and helping others through volunteering or mentoring.

10. Get counseling.

It's a myth that only people with severe psychological problems can benefit

from counseling. Psychotherapy, in particular, can help you learn to regulate your thoughts and emotions to improve your mental and physical health as well as your overall quality of life. Seek out a psychotherapist who routinely measures your progress and evaluates the sense of alliance between the two of you. These simple steps sharply increase the effectiveness of psychotherapy. As a result, you will be far more able to understand and acknowledge your emotions, instead of feeling flooded and overwhelmed by them.

Go to Plan-it Health (www.cutrust.com) to start preventing disease now:

- ✓ Download and read the "Emotional Intelligence E-book" in the Self-Care & Prevention menu.
- ✓ Read the articles on stress under "Stress & Anxiety" in the Mental/Emotional Health menu.
- ✓ Do the "Self-Test: What is Your Level of Stress?" under "Stress & Anxiety" in the Mental/Emotional Health menu.
- ✓ Take the "Reduce Stress Workshop" under "Stress & Anxiety" in the Mental/Emotional Health menu.
- ✓ Watch the videos under "Anxiety-Stress" in the Micro Video Library menu.





Have Strong, Mutually Supportive Relationships

...our intrinsic need for connection

Research shows that people with strong social connections are better able to resist disease. Perhaps the best evidence comes from the tight-knit Italian-American community of Roseto, Pennsylvania. In the late 1960's, its death rate was half the national average—even though many of its residents smoked and ate high-fat foods. Researchers concluded that the stress-reducing benefits

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of the townsfolk's close network of relationships offset the risks posed by their other, less healthy lifestyle habits. Similar studies have shown that happily married men and women live longer, healthier lives than those who are single or unhappily married.

Negative experiences in the past can cause you to shy away from relationships, but that doesn't mean you don't still need people in your life. So deep-seated is the human need for connection that John T. Cacioppo, the world's leading researcher on the health impact of relationships, has found loneliness to be as harmful to a person's health as smoking, obesity, and high blood pressure. Relationships also help you to grow more mature by teaching you to have faith in others, to be caring and generous, and to be in tune with your own emotions.

Here are some tips for establishing and maintaining healthy relationships.

1. Communicate effectively.

Communication is an essential ingredient in any successful relationship. It involves expressing yourself with clarity yet kindness, and responding in the same manner to the other person.

a. When an issue comes up, focus on how you felt about the other person's behavior. Tell them that you felt angry, scared, sad, etc. when they did a specific action. Never speculate about their motivations (you were lazy, you care more about your work than your family). As soon as people try to guess another person's motivation, it comes across as a judgment. However, when you focus on your feelings of rejection, contentment, or sadness, then you are not judging them, you are describing yourself.

b. Mention which behavior (words they spoke, gestures, or other actions) they did that you want to discuss. A simple rule is that a behavior is something you would be able to point to, or hear, on a camcorder. This keeps both of you focused on the facts: "When you rolled your eyes just now I felt angry" or "When you overspent the budget last month by \$600, I felt very scared." You can play back the imaginary videotape to show the other person rolling their eyes. You can also play back the two of you agreeing on the budget 2 months ago, and then the video of you opening the credit card bill. This avoids judgmental statements, such as "When you were selfish and overspent the budget." These judgments inflame a conflict into a fight, which torpedoes the chances of solving the real issue.

c. Mention when the behavior happened. Say “When you rolled your eyes just now I felt angry” or “When you overspent the budget last month I felt a lot of fear.” This keeps the discussion focused on one particular event, which helps resolve the issue. However, if one person says “You always are late for our dates” then the other person defends themselves against this judgment by pointing out times when they were on time. The first person then responds with another example of lateness, which is met with another example of punctuality. The argument continues in this vein, and the specific incident and related issue is lost.

Genuinely listen when someone talks to you. Don’t interrupt them or think of other things as they’re speaking, such as how to answer their problems or your own worries. Listen with your heart as well as your ears so that you genuinely feel the other person’s emotions. Pay attention to the tone, rhythm, and volume of their voice, as well as their body language, including facial expressions, eye contact, and posture. These non-verbal signals can relay a message that words can’t. Give yourself time to process what the person has said before jumping to conclusions. Ask questions that will help you gain a better understanding of their situation and how they’re feeling.

“Researchers say a close network of relationships offsets risks posed by less healthy lifestyle habits.”

2. Manage your expectations.

Nobody’s perfect or will behave exactly as you expect them to; you can’t make lists of everything you want someone to be and then expect a person to meet every single requirement. Have realistic expectations of others and encourage them to grow without trying to force them to conform to your own image of them. You also have to be prepared to get hurt in a relationship and to learn how to cope with your hurt through effective stress management.

CON’T...



3. Be yourself.

Don't pretend to be someone you're not. You want other people to like you for who you are, otherwise you'll be living a lie that will only put a strain on you and your relationships. If you find yourself struggling to love and accept yourself as you are, consider getting counseling.

4. Be flexible.

Every relationship needs change for it to grow and for the two parties to learn more about each other. It's important to let the other person try new things in their life. On some issues, you and the other person won't see eye to eye. Be willing to compromise so you can find a solution that's agreeable to you both.

5. Be dependable and accountable.

Trust is the foundation of any healthy relationship. Make sure you keep plans, finish tasks, and follow through on your word. If you mess up, say "I'm sorry" and try to make amends. Acknowledging the other person's feelings with a heartfelt apology can do wonders for a relationship.

6. Keep your life balanced.

Someone else will never be able to satisfy your every need or complete you. Depending entirely on someone else for your happiness will place tremendous stress on you both. Enhance your life with several close relationships. Find time to spend alone and ways to express your own creativity.

7. Fight fair.

Discuss behaviors, not personalities. Stay focused on the issue or problem and don't resort to personal attacks. Don't assume certain feelings or motives on the part of the other person; let them speak for themselves. Don't bring up past issues to strengthen your argument. By the same token, don't hold grudges. Look at the best in others and leave past situations in the past. Remember that arguing with someone doesn't mean you don't like them—just that you don't happen to see eye to eye on a particular issue.

8. Ask for and receive help when needed.

People were made to support and care for one another. Be ready and willing to ask others for help when you need it, as well as to help others in turn.

9. Always seek a win/win.

A relationship with a winner and a loser can't last, nor can it end happily. In a healthy relationship both individuals are winners. Its dynamic is one of give and take, not give and give, or take and take. Try to seek answers to problems together and to always strive for reciprocity.

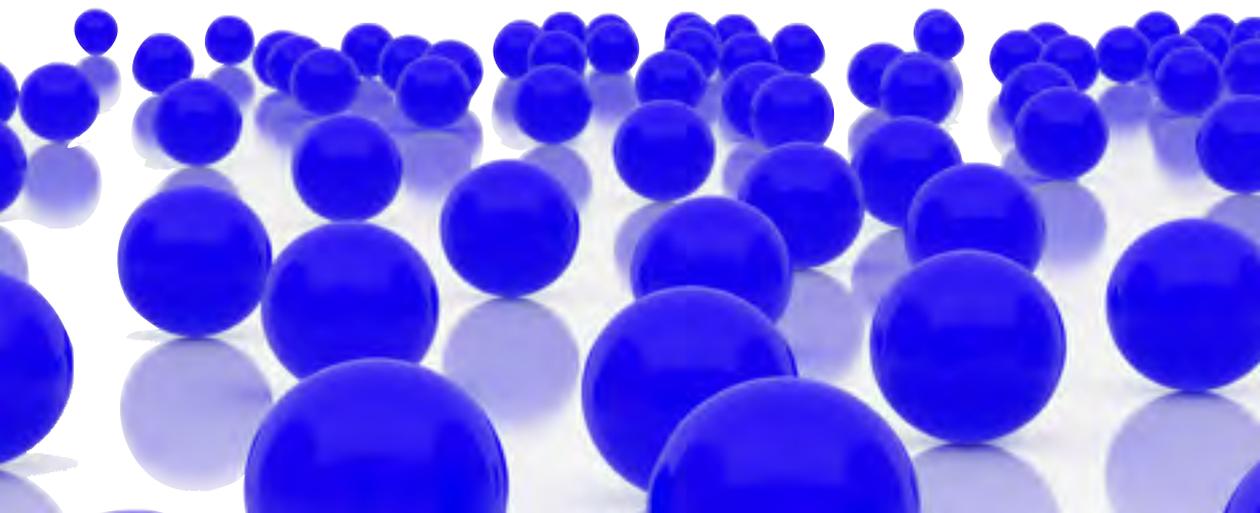
10. Show you care.

Take time to enjoy each other's company and to show you care through loving gestures and actions. Relationships are about sharing life with others; why bother having them if you can't make time for the other person?

While relationships are deeply rewarding, they're also highly challenging. It takes commitment, understanding, and compromise to build a strong, supportive relationship that allows each party to maintain their individuality, accents their best qualities, and encourages personal growth. Never be afraid or embarrassed to seek counseling if you need help to maintain positive relationships or to end unhealthy or negative relationships that can't be mended.

Go to Plan-it Health (www.cutrust.com) to start preventing disease now:

- ✓ Read the articles in the Healthy Relationships menu.
- ✓ Do the "Self-test: Assess Your Relationships" in the Healthy Relationships menu.
- ✓ Do the "Self-test: Communication Skills" in the Healthy Relationships menu.
- ✓ Watch the videos under "Raising Healthy Children" and "Relationship Health" in the Micro Video Library menu.
- ✓ Download and read the "Emotional Intelligence E-book" in the Self-Care & Prevention menu.



Avoid Fatigue

...discover the power of rejuvenation

Everyone experiences days of fatigue, when it's a struggle just to drag yourself out of bed. The spectrum of fatigue runs all the way from feeling tired after a hard day at work to chronic fatigue syndrome, a debilitating condition that's diagnosed after six months of unremitting exhaustion.





Physical weariness, lack of initiative, and poor attention span are just a few symptoms that signal that the body requires more rest and relaxation. The limbs feel heavy and the mind becomes dull. The source of fatigue is rarely apparent and shouldn't cause undue concern unless adequate rest fails to restore normal energy levels within a reasonable time frame.

Fatigue or tiredness is a symptom that sends at least one in five people to the doctor. In only 20 percent of these cases is an identifiable or treatable medical condition diagnosed; in the rest no obvious physical basis for chronic weariness or exhaustion is identified.

Nutritional deficiencies associated with the typical North American diet may play a major role in fatigue, since energy production depends on several nutrients. Dietary staples that provide inadequate nutrition are canned and processed foods, foods high in sugar, and

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refined, white-flour products, pastas, and white rice. The virtual absence of fresh fruit and vegetables means that the body must compensate for overacidity by draining its own tissues of alkaline mineral reserves. Eventually, it exhausts these reserves, leading to fatigue.

Fatigue can be a sign of many illnesses. Medical problems in which fatigue is a major symptom include anemia, poor thyroid or adrenal function, hypoglycemia, infections, and allergies. Intense fatigue can signal a serious illness such as chronic fatigue, fibromyalgia, diabetes, cancer, liver problems, or autoimmune diseases. Fatigue can also be a side effect of medication.

Overworking on a regular basis can cause fatigue. Those who spend too much time focused on work or adhering to a busy schedule may lack balance in their lives, such as stressed-out single mothers or “supermoms”. Fatigue is a message from your body that all isn’t well. Your body needs times of rest, relaxation, and play to function at its best. Likewise, connecting with those you love is crucial to helping you recharge your emotional batteries and replenish your energy reserves.

Emotional stress is another important factor in fatigue. People with depression often experience fatigue as a symptom, while the apathy and lassitude associated with depression usually causes them to be physically inactive. This leads to muscle weakness, even atrophy, so that when they do try to exercise they may feel too tired to continue. Regular or prolonged emotional stress such as grief, loneliness, anger and anxiety can also result in fatigue. For many people, financial worries are a huge drain on their energy.

Sleep is an essential element of good physical health and energy. Most people need between 8 and 10 hours of solid sleep to be at their best. The number of hours of sleep the average American gets over a 24-hour period is 6.8. The clearest indication that you’re not getting enough sleep is feeling sleepy during the day. Inadequate sleep or restless or interrupted sleep increases your risk of high blood pressure, heart disease, and other medical problems, since your body uses sleep as a time to produce and release vital hormones. These include growth hormone, which fuels growth in children, and helps build muscle mass and repair cells and tissues in adults.

Inactivity can also lead to fatigue. Movement is essential for the elimination of metabolic waste products; if waste is allowed to accumulate, organ damage and exhaustion will result.

Whatever the cause of your fatigue, the following steps will help you increase your energy levels.

1. Improve your diet.

Good nutrition is central to consistent energy levels. It includes plenty of fresh, leafy green vegetables and other whole, fresh foods that contain essential vitamins, minerals, enzymes, and other nutrients (see “Eat Right for Good Digestive Health” for more helpful ideas).

2. Be active.

Exercise is the next step in regaining energy. Begin slowly with walking, bicycling, yoga, tai chi, or swimming, as well as deep breathing. Getting your blood moving and your lymphatic circulation going are extremely important to oxygen exchange and toxin removal. The lymphatic system, which is responsible for removing toxins, depends on muscle

movement to work properly. Without movement, the lymphatics clog up and can cause fluid retention throughout the body. Deep breathing and movement stimulates lymphatic circulation.

3. Get sufficient sleep.

Sleep and rest are necessary for your body to recharge and heal. Go to bed and wake up at the same time each day, even on weekends. The earlier you go to bed, the more hours you'll have of deep, restful sleep when cortisol levels are lower. Get at least 30 minutes of exercise during the day but avoid vigorous activity closer than five or six hours before bedtime. Try to go outside to enjoy natural sunlight for at least 30 minutes each day to help regulate daily sleep patterns. Avoid caffeine and alcoholic drinks before bed, since the stimulating effects of caffeine can take as long as eight hours to wear off, as well as large meals and beverages after 7 p.m. Don't take naps after 3 p.m. and limit any naps to under an hour.

Develop a relaxing bedtime ritual: gentle exercise such as walking, yoga, or stretching; reading or listening to music; taking a hot bath or shower; and deep breathing, prayer, affirmations, or meditation. If anxiety about the next day or problems you're having interfere with your sleep, journal or make a list and then let it go. Get rid of anything that might distract you from sleep, such as noises, bright lights, an uncomfortable bed, or a TV or computer in your bedroom. Keeping the temperature in your bedroom on the cool side can also help you sleep better, while sleeping in a dark room helps to raise natural melatonin levels.

4. Learn to manage stress.

Stress and worry use up valuable energy and suppress the body's immune system. It's vital for your health and well-being to find ways to de-stress and to move into a relaxed state. With practice, you can become skilled at managing your thoughts and emotions.

5. Get a health assessment.

If you're still experiencing fatigue, seek the help of a medical professional who can test for any underlying factors or disease processes that may require treatment. If you're taking medications, ask your doctor whether or not these could be contributing to your fatigue. Many people find that natural detoxification programs can help them to regain their natural energy levels.

Go to Plan-it Health (www.cutrust.com) to start preventing disease now:

- ✓ Read "Sleep Importance" in the Self-Care & Prevention menu.
- ✓ Read "Reduce Shift Work Impact" in the Occupational Health menu.
- ✓ Search articles on "sleep" under "Search a Topic" in the Health Topic Search menu.
- ✓ Watch "Sleep Hygiene: How to Discipline Our Sleep Cycle Without Medication" under "Changing Behavior" in the Micro Video Library menu.
- ✓ Read "Rejuvenation" and "Work-Life Balance" in the Self-Care & Prevention menu.

Resources:

1. http://cme.medscape.com/viewarticle/507149_3
2. <http://www.bbc.co.uk/science/human-body/sleep/profiler/>



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Know Your Numbers

...measuring health with biomarkers

Biomarkers are important numbers to know. They are the results of tests done by your doctor or using basic calculations and provide an objective measurement of your health as well as your risk for chronic disease. Changes in your biomarkers often serve as the first indication of a health problem, enabling you to catch it early. This makes it much easier to take remedial action to restore you to good health.

A critical new biomarker is one that measures your mental health. Recent longitudinal research by the University of Calgary shows that if a person has significant levels of depression, their risk of heart disease increases by 70%, of arthritis by 90%, of asthma by 110%, of emphysema by 120%, of hypertension by 70%, of migraines by 90%, and of diabetes by 60%. A similar pattern has been found with loneliness: people who are socially isolated have poorer physical health. Monitoring your emotional health is just as important as keeping track of your physical health, as the two interact so closely.

“Don't wait for disease to be your wake-up call.”

The biomarkers below are the most important ones for determining your risk of cardiovascular disease, cancer, osteoporosis, and type 2 diabetes. In addition to getting an annual medical check-up, you should have these tests done as needed and keep track of your results using the Health Tracker. Don't wait for a heart attack or a cancer diagnosis to be your wake-up call: take the initiative to get your biomarker numbers into the optimum range.

Blood Pressure

A blood pressure reading measures the force the blood is under in the arteries during and after contraction of the heart. The first number (e.g., “120/”), which shows the pressure during a heart contraction, is called systolic pressure. The second number, which shows the pressure during relaxation phase, is called diastolic pressure (e.g., “/80”). High blood pressure (or hypertension) is a consistently elevated blood pressure exceeding 140/90 mmHg. The ideal blood pressure is considered to be around 120/80 mmHg.

Total Cholesterol

Your total cholesterol is the sum of your LDL (bad cholesterol), HDL (good cholesterol), and other lipo-proteins. Ideally, your total cholesterol should be below 5.2 mmol/L, unless your HDL is high. People under 30 should aim for an even lower total of 4.1 mmol/L. You can lower your total cholesterol through exercise and diet.

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Triglycerides

Triglycerides are the primary form of fat in the blood. They're derived mainly from eating certain types of foods and can usually be lowered by following a strict low-fat diet. A total cholesterol test will measure your triglycerides. A high level can indicate an increased risk of diseases such as diabetes.

Homocysteine

Homocysteine is an amino acid found in the blood. Elevated levels are associated with hardening and narrowing of the arteries, along with an increased risk of heart attacks, strokes, and possibly Alzheimer's disease. Consuming folic acid supplements or cereals fortified with folic acid, as well as B6 and B12 vitamins, can help to lower blood homocysteine levels.

Blood Sugar (Glucose)

Blood sugar is the key biomarker for the diagnosis and monitoring of diabetes. The standard test for diabetes is a fasting glucose blood test conducted by your doctor. If the fasting glucose level appears to be abnormal, further testing may be required. Another test, the

glucose tolerance test, measures blood glucose levels over a few hours after ingestion of a sugar drink. However, it's more accurate for the diagnosis of pre-diabetes than diabetes. Symptoms of diabetes and other blood-sugar disorders include severe increased thirst and hunger, frequent urination, unexplained weight loss, and/or tingling in the limbs.

BMI

Body Mass Index (BMI) is the division of your weight in kilograms by the square of your height in meters. Experts consider BMI a good indicator of the risk for cardiovascular disease, hypertension, diabetes, and cancer. A BMI greater than 27.3 for women and 27.8 or more for men indicates overweight.

Calorie Count

A person's optimal caloric intake per day depends on their body size, physical activity, and body weight goals. Actual calorie intake also depends on a number of other factors, including metabolic rate. People with an average-sized body whose jobs entail low or moderate physical activity should be consuming no more than 1,800 calories a day.

Biomarker	Indicates increased risk for:	Specific eating tips:
Blood Pressure The force that blood is under	<ul style="list-style-type: none">☐ Heart attack☐ Stroke	<ul style="list-style-type: none">☐ Avoid using salt☐ Eat plenty of potassium-rich green vegetables
Total Cholesterol Elevated cholesterol contributes to the formation of plaque in the arteries	<ul style="list-style-type: none">☐ Heart disease☐ Stroke	<ul style="list-style-type: none">☐ Cut back on alcohol and food high in saturated and trans fats☐ High-fiber foods (oat, bran, ground flaxseed) carry cholesterol from the body
Triglycerides The major form of fat in the blood	<ul style="list-style-type: none">☐ Coronary artery disease☐ Stroke☐ Inflammation of the pancreas	<ul style="list-style-type: none">☐ Reduce consumption of sugar and bad fats☐ Eat fresh fruits and foods high in omega-3 fatty acids
Homocysteine An amino acid that is produced by the body	<ul style="list-style-type: none">☐ Heart attack☐ Stroke☐ Alzheimer's disease☐ Excessive blood clotting	<ul style="list-style-type: none">☐ Citrus fruits, tomatoes, vegetables, and whole-grain products are good sources of folic acid and B6 and B12 vitamins, which can lower blood homocysteine levels☐ Eat more vegetable protein and less animal protein
Blood Sugar (Glucose) Sugar as glucose in your blood	<ul style="list-style-type: none">☐ Hypoglycemia (low blood sugar)☐ Diabetes	<ul style="list-style-type: none">☐ Avoid white sugar and baked goods☐ Have quality protein with each meal and snack, such as beans, nuts, seeds, eggs, lean meats, and low-fat dairy products

Waist Circumference

A high waist circumference indicates an elevated risk of diabetes and heart disease. A waist circumference greater than 40 inches in men and 35 inches in women and/or an increasing waistline should be considered a cause for concern. An even better biomarker for assessing risk for heart disease is waist to tallness ratio (WTR). Take your height in inches and multiply it by 0.55 if you're a man and 0.53 if you're a woman. This will give you a good idea of the upper limit of a healthy waistline (in inches) for you.

Mammogram

A mammogram can be used to detect small cancers in the breast. But unfortunately, it's not foolproof; approximately 10 to 15 percent of breast cancers can't be identified through mammography alone. Women should also conduct monthly self-exams and have their doctor perform an annual breast examination in order to most effectively screen for breast cancer.

PSA

The prostate specific antigen (PSA) is a substance produced by the prostate gland. Most PSA is carried out of the body in semen, but a very small amount escapes into the blood, which can be tested to determine PSA levels. There may be many different reasons for elevated PSA, including benign prostate enlargement, inflammation, infection, age, and race, as well as prostate cancer. Regular PSA tests along with a digital exam are recommended in men over 50 and in higher risk men over 40.

Go to Plan-it Health (www.cutrust.com) to start preventing disease now:

- ✔ Record the results of health tests under "Health Tracker" in the Measuring Health menu.
- ✔ Calculate your Body Mass Index (BMI) under "BMI Calculator" in the Measuring Health menu.

Biomarker	Indicates increased risk for:	Specific eating tips:
Body Mass Index (BMI) Indicator of a healthy weight $\text{BMI} = \frac{\text{weight (kg)}}{\text{height}^2 \text{ (meters)}}$	<ul style="list-style-type: none"> ☐ Heart disease ☐ High blood pressure ☐ Diabetes ☐ Cancer 	<ul style="list-style-type: none"> ☐ Restrict intake of processed and junk foods ☐ Exercise to burn off excess calories
Calorie Count How much energy you require from your daily diet	<ul style="list-style-type: none"> ☐ Obesity ☐ Malnutrition 	<ul style="list-style-type: none"> ☐ Use the Calorie/Nutrition Counter under the Eating Well menu to calculate your calorie intake
Waist Circumference Measurement at the waistline	<ul style="list-style-type: none"> ☐ Type 2 diabetes ☐ Unhealthy blood fat levels ☐ High blood pressure ☐ Cardiovascular disease 	<ul style="list-style-type: none"> ☐ Start each dinner with a large salad to reduce caloric intake ☐ Adopt an exercise program and stick with it
Mammogram X-ray of the breast tissue	<ul style="list-style-type: none"> ☐ Breast cancer 	<ul style="list-style-type: none"> ☐ Lignans in ground flaxseeds help reduce risk ☐ Colorful fruits and vegetables provide antioxidants to protect against cancer
PSA Blood test detecting a protein made in the prostate gland of men	<ul style="list-style-type: none"> ☐ Benign prostate enlargement ☐ Prostate inflammation or infection ☐ Prostate cancer 	<ul style="list-style-type: none"> ☐ Nuts and seeds (especially pumpkin seeds) provide essential fatty acids and zinc to nourish the prostate ☐ Avoid hydrogenated fats from processed foods

Depression



Anxiety



Digestive Diseases



Heart Disease



Disease

...learn. cope. prevent

Cancer



Diabetes



Addiction



Arthritis





Depression

...the way out

Everyone feels sad once in a while, but the feeling usually passes within a couple of days. Depression is characterized by persistent sadness and lethargy that squelches the desire and drive to carry out ideas and activities. Pleasure and interest in life suddenly seems to disappear.

Of the numerous types of depressive disorders, major depressive disorder and dysthymic disorder are the most common. Major depressive disorder, also called major depression, is characterized by a combination of symptoms that interfere with your ability to work, sleep, study, eat, and enjoy once-pleasurable activities. Major depression is disabling and prevents you from functioning normally. Although some people with this disorder only experience a depressive episode once, episodes usually recur throughout a person's lifetime. Dysthymic disorder, also called dysthymia, is characterized by long-term but less severe symptoms that may not disable you but can prevent you from functioning normally or feeling well. People with dysthymia may also experience one or more episodes of major depression during their lifetimes.

Bipolar disorder, also called manic-depressive illness, is not as common as major depression or dysthymia. It is characterized by cycling mood changes from extreme highs (mania) to extreme lows (depression).

Many people with depression never seek treatment. But even those with the most severe cases can get better with treatment. Intensive research has led to the development of medication, psychotherapies, and other methods to help people overcome this debilitating disorder.

Causes

Research suggests that depressive illnesses are disorders of the brain. Brain-imaging technologies, such as magnetic resonance imaging (MRI), reveal discernable differences in the brains of people with depression. Parts of the brain responsible for regulating mood, thinking, sleep, appetite, and behavior appear to function abnormally, while levels of neurotransmitters used by brain cells to communicate are out of balance. But these images still don't explain why depression occurs.

“Research shows that depressive symptoms decrease by nearly 50 percent if you exercise for half an hour most days of the week”

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Depression is probably linked to a variety of genetic, biochemical, environmental, and psychological factors. Some types of depression tend to run in families, suggesting a genetic link. However, depression often occurs in people without family histories of depression. Depression can be caused by early childhood trauma or poor parenting. Loss of a loved one, a difficult relationship, job loss, or a recent stressful situation can all trigger a depressive episode. Subsequent depressive episodes may then occur with or without an obvious trigger.

Nutritional and biochemical imbalances sometimes play a role in causing depression. Food allergies also cause depression in certain individuals. In addition, insufficient sleep and lack of exercise reduce the body's ability to deal with stress, possibly laying the groundwork for depression. Hormonal changes within the body may also be the culprit when depression is associated with PMS, menopause, or postpartum depression.

Depression frequently co-exists with other serious medical illnesses such as heart disease, stroke, cancer, HIV/AIDS, diabetes, and Parkinson's disease. Studies have shown that people who have depression in addition to another serious medical illness tend to have more severe symptoms of both depression and the other illness, more difficulty adapting to their condition, and more medical costs than patients without co-existing depression. Research is providing increasing evidence that treating depression can also help in treating the co-occurring illness.

Anxiety disorders, such as Post-Traumatic Stress Disorder (PTSD), and addictions often accompany depres-

sion. In fact, research has indicated that the co-existence of mood disorders and substance abuse is pervasive. Although the mechanics behind the intersection of depression with other conditions differ for each individual, these co-occurring illnesses need to be diagnosed and treated in every case.

Symptoms

People with depressive illnesses don't always experience the same symptoms and their severity, frequency, and duration vary widely depending on the individual and their particular illness. Some of the more common symptoms include: persistent sad, anxious, or "empty" feelings; hopelessness and/or pessimism; feelings of guilt, worthlessness, and/or helplessness; irritability and restlessness; loss of interest in previously enjoyed activities or hobbies; fatigue and decreased energy; and difficulty concentrating, remembering details, and making decisions. If the sense of hopelessness and despair goes unaddressed, it may lead to suicidal thoughts and impulses.

While depression affects each individual differently, obvious outward signs are changes in routine, such as sleep and eating habits. Difficulty falling asleep or staying asleep are typical, although some people with depression use sleep as an escape from problems. Eating habits can become extreme: either a poor appetite and weight loss or bingeing and strong cravings for candy and junk food. In either case, nutrition is neglected and the resulting deficiencies further interfere with energy and attitude.

Many physical problems can arise as a result of depression, including an overall weakening of the immune system,

along with stomach upsets, headaches and generalized or localized pains, and low or no sex drive. Women may experience reduced and infrequent menstrual periods or their periods may stop altogether. This is often interpreted as a sign of an unwanted pregnancy, compounding their depression. Men frequently experience loss of sexual interest and drive, erectile dysfunction, and ejaculatory impotence.

Some symptoms are characteristic of specific types of depressive illnesses. A depression that recurs with the dark, damp winter months and disappears annually with spring is known as seasonal affective disorder (SAD). Following the birth of a child, women often experience postpartum depression, which can range from mild despondency to a devastating despair. Bipolar disorder is a serious form of depression characterized by extreme swings in mood and energy levels: periods of severe apathy and listlessness are offset by periods of euphoria and exhilaration when even sleep seems unnecessary.

Diagnosis & treatment

Depression is a highly treatable disorder. As with many illnesses, the earlier treatment begins, the more effective it is and the greater the likelihood of preventing any recurrence.

The first step to getting appropriate treatment is to visit a doctor. If you're unsure of where to go for help, check the phonebook under "mental health," "health," "social services," "hotlines," or "physician" for phone numbers and addresses. If you're in extreme distress, an emergency room doctor can also help you and tell you where and how to get further help.

Certain medications and some medical conditions such as viruses or a thyroid disorder can cause the same symptoms as depression. A qualified health-care provider can rule out these possibilities by conducting a physical examination, interview, and lab tests. Next, they'll refer you to a mental health professional for a complete diagnostic evaluation. They'll discuss any family history of depression and get a complete history of your symptoms. They may also ask you if you're using alcohol or drugs and whether you have any thoughts of suicide or death.

Depression is almost always treated with psychotherapy. Two main types: cognitive-behavioral therapy (CBT) and interpersonal therapy (IPT)—have been shown to be effective in treating depression. CBT teaches you new ways of thinking and acting to replace old ones that may be contributing to your depression. IPT helps you to understand and work through troubled personal relationships that may be causing your depression or making it worse.

For mild to moderate depression, psychotherapy is often the best treatment option. But psychotherapy isn't always enough. For more severe cases, health-care providers may have to prescribe anti-depressants as part of the course of treatment. These medications work to normalize naturally occurring neurotransmitters such as serotonin, norepinephrine, and dopamine. These particular brain chemicals regulate mood, though scientists still don't know exactly how.

Studies show that for adolescents, psychotherapy is the treatment of choice

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for treating major depression. Medication actually increases the risk of suicidal thoughts in children and adolescents. Several long-term studies show that people treated with psychotherapy have 1/2 to 1/3 the relapse rate of those treated with medication only. Although medication is generally safe, Health Canada warns that it causes suicidal and aggressive thoughts in a small group of people, and should be monitored carefully.

Prevention

Having a strong support network to turn to is the best insurance against depression. Maintain your friendships and stay in touch with your family. Let your friends and loved ones help you when you feel down. Get out regularly to a movie, a hockey game, or other events or activities that you enjoy. Be part of a faith community or volunteer for a cause you believe in. And be your own best friend: address any unresolved emotional issues through counseling, set realistic goals, and be forgiving with yourself when you make mistakes.

There's considerable evidence that regular exercise can help to prevent depression. You can gain mental as well as physical benefits from moderate-intensity exercise such as walking outdoors, gardening, dancing, and swimming. Pick something you enjoy and start doing it for 30 minutes a day, gradually increasing the time as you're able.

Overcoming depression

You may feel exhausted, helpless, and hopeless. It may be extremely difficult to take any action to help yourself. But it's important to realize that these feelings are part of the depression and don't accurately reflect your reality. As you start treatment and begin to under-

stand your condition, negative thinking will gradually be replaced by more positive thinking.

Your mood will improve incrementally, not immediately. Don't expect to suddenly "snap out of" your depression. Often, sleep and appetite will begin to improve before your depressed mood lifts. Postpone important decisions, such as getting married or divorced or changing jobs, until you feel better. Discuss decisions with others who know you well and have a more objective view of your situation.

The poor eating habits associated with depression result in nutrient deficiencies that further rob the body of energy. White bread, flour, and pasta—along with saturated animal fats, hydrogenated vegetable oils, sweets, soft drinks, and canned goods—deplete the body of brain-nourishing B vitamins. Limit consumption of these foods and replace them with a healthier diet that includes plenty of fruit, vegetables, and whole grains, as well as tofu, beans, and seafood for protein. Instead of eating a commercial cereal or white toast and jam for breakfast, try having a Swiss muesli made with rolled oats, almonds, fresh grated apples, milk, and natural, plain yogurt. Watercress helps in cases where iodine deficiency may be contributing to depression.

The omega-3 essential fats are an important brain nutrient and help reduce feelings of depression. Excellent sources of these good fats include cold-water fish (wild salmon, herring, mackerel, and sardines) and flaxseed and walnut oils. It may be necessary to take a fish-oil supplement to get sufficient quantities of the key fats EPA and DHA.

Research shows that depressive symptoms decrease by nearly 50 percent in people who engage in brisk walking or other aerobic exercise for half an hour most days of the week. The fresh air and sunlight also stimulate production of vitamin D, low levels of which are believed to contribute to depression. Aim to walk at least 30 minutes a day to help renew your zest for life, build your stress resilience, and boost your self-image.

Role of family & friends

If you know someone with depression, it affects you too. The first and most important thing you can do is encourage them to get an appropriate diagnosis and treatment. You may need to make an appointment on their behalf and go with them to the doctor's. Urge them to stay in treatment or to seek different treatment options if there's no improvement after six to eight weeks.

Other ways that you can help someone you care about to overcome depression are by:

- ✓ providing emotional support, understanding, patience, and encouragement
- ✓ engaging them in conversation and listening carefully
- ✓ never disparaging their feelings, but pointing out realities and offering hope
- ✓ reporting any comments they may make about suicide to their therapist or doctor
- ✓ inviting them out for walks and other enjoyable activities, such as seeing a funny movie. Keep trying if they decline, but don't push them to take on too much too soon, as this may exacerbate feelings of failure
- ✓ reminding them that with time and treatment, the depression will lift.

If you're thinking about harming yourself, or know someone who is, get help immediately. Call your doctor or 911, go to a hospital emergency room, or ask a friend or family member who can help you to do so. Make sure you or the suicidal person aren't left alone.



Plan-it Health Online Tools (www.cutrust.com)

Test yourself to see if you have depression or get a loved one to take the test. Assess yourself at “Self-test: Are you Depressed” under “Depression” in the Mental/Emotional Health Menu.

Learn all you can about depression. Read the articles under “Depression” in the Mental/Emotional Health menu and search for articles on “depression” under “Search a Topic” in the Health Topic Search menu.

Watch short video tutorials on mental/emotional health under the Micro Video Library menu.

Health Tracker

Under “Assess Mental Emotional Health”: Emotional Health, Self-test: Are You Depressed?, Self-test: Stress Resilience, Self-test: Mood Disorder, Self-test: What is Your Level of Stress?, Self-test: Anger Management, Self-test: Anxiety, Self-test: Post-traumatic Stress

Under “Assess Relationship Health”:
Self-test: Assess Your Relationships,
Self-test: Communication Skills, Self-test: Violent Relationship

Under “Assess Lifestyle”: General Habits/Lifestyle, Nutrition, Exercise, Environmental Health, Lifestyle Calculator

Under “Assess Addictions”: Self-test: Am I Addicted to Drugs?, Self-test: Cybersex Addiction, Self-test: Sexual Addiction, Self-test: Alcohol Problem

Disease prevention checklist:

General

- ✓ Be physically active / Are you physically active for at least 30 minutes most days of the week?
- ✓ Have healthy, mutually supportive relationships / Do you have people in your life whom you can confide in and rely on for support?
- ✓ Manage and reduce stress / Do you know what the sources of your stress are and do you have ways to reduce and/or manage them?
- ✓ Get sufficient quality sleep / Do you get seven to eight hours of sleep a night?
- ✓ Visit your health-care provider to screen for disease / Do you see your doctor at least once a year?



Other

- ✓ Be socially active / Do you get out regularly to a movie, a hockey game, or other events or activities that you enjoy?
- ✓ Address any unresolved emotional issues through counseling / Are you ready and willing to seek help if you need it?

Depression at a Glance

How widespread an illness is it?

Depression affects Canadians of all age groups, income levels, and cultural backgrounds. About 8 percent of adult Canadians will experience major depression at some point in their lives.

What are its main symptoms?

Depression is more than a bad day or a rough patch. It's an unshakeable feeling of sadness and emptiness that lasts for weeks, months, and even years on end. Depression also presents physical symptoms not normally seen when a person is simply sad. People with depression typically have low energy levels, are easily fatigued, and often complain of generalized body aches or localized pain, such as headaches, chest pain, or back pain. Problems with sleep are also common, as are fluctuations in appetite and weight.

Can depression be cured?

Yes. Depression is highly curable with the help of professional treatment. Unfortunately, almost half of all people with depression never seek treatment.

Where do I go if I want more information?

Contact: Mood Disorders Association of British Columbia

202-2250 Commercial Dr.

Vancouver, BC V5N 5P9

Web: www.mdabc.net

Phone: 604.873.0103

Fax: 604.873.3095

The Mood Disorders Association of B.C., in association with the B.C. Partners for Mental Health & Addictions Information (Here to Help), offers free information about mental health and mental illness. Call 604-669-7600 on the Lower Mainland or toll-free 1-800-661-2121. The line provides pre-recorded information 24/7 about services across B.C., as well as symptoms, causes, treatments, support groups, and publications. Press "o" at any time to speak to a staff member or volunteer.

Here to Help:

Web: www.heretohelp.bc.ca





Anxiety

...stop — take a deep breath

Everyone worries about things like health, money, or family problems at one time or another. But people with general anxiety disorder or other anxiety disorders are extremely worried about these and many other things, even when there's little or no reason to worry about them. They have catastrophic thoughts of harm or danger occurring to themselves or others. They may be very anxious about just getting through the day and always think things will go badly. At times, worrying keeps people with anxiety from doing everyday tasks.

Unlike the relatively mild, brief anxiety caused by a stressful event (such as speaking in public or a first date), an anxiety disorder lasts at least six months and can get worse if left untreated. It can cause complete, albeit temporary, memory blocks or entirely inappropriate behavior. Effective therapies for anxiety disorders are available, and research is discovering new treatments that can help most people with anxiety disorders to lead productive, fulfilling lives. If you think you have an anxiety disorder, reclaim your life by seeking information and treatment right away.

Causes

Several parts of the brain act in tandem to produce the sensation of fear and anxiety. Using brain imaging technology and neurochemical techniques, scientists have discovered that the amygdala and the hippocampus play significant roles in most anxiety disorders.

The amygdala is an almond-shaped structure deep in the brain that's believed to be a communications hub between the parts that process incoming sensory signals and the parts that interpret these signals. It alerts the rest of the brain when a threat is perceived and triggers a fear or anxiety response. Emotional memories appear to be stored in the central part of the amygdala and may be linked to anxiety disorders involving very distinct fears. The hippocampus is the region of the brain that encodes threatening events into memories. Studies have revealed that the hippocampus may actually be smaller in people who were victims of child abuse or who served in military combat.

“New treatments can help most people with anxiety disorders to lead productive, fulfilling lives.”

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Physically, anxiety occurs when an overload of stress on the nervous system throws it off balance. Over-stimulation leading to frayed nerves is a common problem in today's society. Besides the constant pressure of juggling work and family responsibilities, cell phones and pagers allow individuals to be available 24 hours a day. Late nights and continually changing sleep patterns have become serious problems: sleep helps to regulate stress, so a lack of sleep can promote and aggravate anxiety.

Anxiety commonly occurs alongside other mental or physical illnesses, such as addiction, which may mask anxiety symptoms or make them worse. An overactive thyroid can also lead to anxiety symptoms by speeding up the body's metabolism, as can strokes and illnesses that affect the central nervous system. These other health conditions must sometimes be treated first before a person will respond to treatment for their anxiety disorder.

Symptoms

If you have anxiety, you worry excessively about everyday things for at least six months, even if there's little or no reason to worry about them. You can't control your constant worries, despite realizing that you worry much more than you should. You can't relax, have a hard time concentrating, are easily startled, and have trouble falling asleep or staying asleep.

Physical signs of anxiety range from trembling and sweaty hands, to bouts of diarrhea, heart palpitations, and full-blown panic attacks. A feeling of a lump in the throat, also known as globus hystericus, is not uncommon for women during times of extreme stress.

Other common body symptoms include feeling tired for no reason, headaches, muscle tension and aches, having a hard time swallowing, trembling or twitching, irritability, sweating, nausea, lightheadedness, feeling out of breath, frequent urination, and hot flashes.

Diagnosis & treatment

If you think you have an anxiety disorder, the first person you should see is a doctor. They can determine whether your symptoms are due to an anxiety disorder, another medical condition, or both. If an anxiety disorder is diagnosed, the type of disorder or the combination of disorders that are present must be identified, as well as any coexisting conditions such as depression or substance abuse.

The next step is usually seeing a mental health professional. The practitioners who are most helpful with anxiety disorders are those with training in cognitive-behavioral therapy and/or behavioral therapy. You should feel comfortable talking with the mental health professional you choose; if you don't, seek help elsewhere. Once you find a mental health professional you feel comfortable with, you can work as a team and make a plan to treat your anxiety disorder together. The most effective therapists routinely measure if you are making progress in therapy, and evaluate the sense of teamwork between you and them. This objective feedback helps them to fine-tune therapy so that you make good progress.

Anxiety disorders are usually treated with medication, specific types of psychotherapy, or both. Treatment choices depend on the problem and your personal preference. Medication can't cure anxiety disorders, but it can keep them under control while you receive

psychotherapy. Medication must be prescribed by physicians, usually psychiatrists, who can either offer psychotherapy themselves or work as a team with psychologists, social workers, or counselors. The principal medications used for anxiety disorders are antidepressants, anti-anxiety drugs, and beta-blockers to control some of the physical symptoms.

Cognitive-behavioral therapy (CBT) is very useful in treating anxiety disorders. It helps you change the thinking patterns that support your fears and change your reactions to anxiety-provoking situations. For example, CBT can help people with panic disorder learn that their panic attacks are not heart attacks and help people with social phobia learn how to overcome the belief that others are always watching and judging them. To be effective, the therapy must be directed at your specific anxieties and must be tailored to your needs. CBT also teaches deep breathing and other types of exercise to relieve anxiety and encourage relaxation. There are no side effects other than the discomfort of temporarily increased anxiety.

CBT often lasts about 12 weeks and may be conducted individually or with a group of people who have similar problems. Group therapy is particularly effective for social phobia. Often, “homework” is assigned for participants to complete between sessions.

There’s some evidence that the benefits of CBT last longer than those of medication for people with panic disorder, and the same may be true for obsessive compulsive disorder (OCD), post-traumatic stress disorder (PTSD), and social phobia. If a disorder recurs at a later date, the same therapy can be used to treat it successfully a second time.

Prevention

Anxiety is directly linked to your ability to cope with stress in your environment. It occurs most commonly during, or in anticipation of, an event that depends on performance. Typical situations that arouse anxiety are working under deadlines, starting a new job, or meeting someone important. Change also causes anxiety, and the more serious the change, the more profound the effect. Death, divorce, and personal illness are among the most challenging changes that can trigger symptoms of anxiety and nervous tension.

Whatever the cause of anxiety, the result is not always debilitating. If feelings of anxiety cause you to work through unresolved problems, the results can be highly rewarding. Redefining who you are and what you want reinforces a sense of yourself, builds confidence, and helps to prevent the development of a full-blown anxiety disorder.

Overcoming anxiety

Many people with anxiety disorders benefit from joining a self-help or support group and sharing their problems and achievements with others. The Internet has many virtual support groups, but any advice received online should be treated with caution, since Internet acquaintances usually never see each other and false identities are common. Talking with a trusted friend or member of the clergy can also provide support, although it should never be used as a substitute for treatment by qualified health-care providers.

Stress management techniques and meditation can help people with anxiety disorders to relax and may enhance the effects of therapy. There’s preliminary evidence that aerobic exercise may have

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a calming effect. Hiking, walking, and swimming are all effective antidotes for tension, while deep-breathing exercises can help to oxygenate and relax you.

Since caffeine and some over-the-counter cold medications aggravate symptoms of anxiety disorders, they should be avoided. Refined, white-flour, and sugar products and processed food essentially starve the body of B vitamins, weakening the body and triggering feelings of anxiety. Sweet foods are especially harmful, since their digestion causes a dramatic drop in blood sugar which can be experienced as apprehensive jitteriness. Alcohol should also be avoided, since it perpetuates anxiety in addition to potentially leading to addiction.

A healthy, whole-foods diet emphasizing fresh vegetables and fruit, nuts, and whole grains helps to counteract anxiety. Fruit and vegetables are best eaten raw, since cooking destroys many vitamins and enzymes. Pay special attention to foods rich in the B vitamins, such as whole grains, nuts, green, leafy vegetables, nutritional yeast, eggs, and fish.

Oats are highly beneficial for the nervous system. Eat them as porridge or soak them overnight to make a Swiss muesli. Freshly ground hazelnuts are another healing food for frayed nerves. Fifteen to 20 hazelnuts provide enough high-quality protein and nut oil for a meal. Honey dissolved in warm milk can also have a calming effect.

Role of family & friends

The family is very important in the recovery of a person with an anxiety disorder. Ideally, the family should be supportive but not help to perpetuate their loved one's symptoms. Family members shouldn't trivialize the disorder or demand improvement without treatment.

If someone you care about has anxiety, you can make their life easier by:

- ✓ injecting humor into the conversation whenever appropriate
- ✓ inviting them to do a regular exercise activity with you, such as going on a brisk walk
- ✓ learning all you can about their condition
- ✓ helping them work through their anxious thoughts—e.g., "Is it possible a tornado could strike and kill our family? Yes, but how likely is it that it actually will?"
- ✓ seeking counseling for yourself or as a family.

Plan-it Health Online Tools (www.cutrust.com)

Test yourself to see if you have anxiety or encourage a loved one to take the test. Assess yourself at "Self-test: Anxiety" under "Stress & Anxiety" in the Mental/Emotional Health Menu.

Learn all you can about anxiety. Read the articles under "Stress & Anxiety" in the Mental/Emotional Health menu and search for articles on "anxiety" under "Search a Topic" in the Health Topic Search menu.

Build your stress resilience by taking the "Reduce Stress Workshop" under "Stress & Anxiety" in the Mental/Emotional Health menu.

Watch short video tutorials on anxiety and stress under the Micro Video Library menu.

Health Tracker

Under "Assess Mental Emotional Health": Emotional Health, Self-test: Are You Depressed?, Self-test: Stress Resilience, Self-test: Mood Disorder, Self-test: What is Your Level of Stress?, Self-test:

Anger Management, Self-test: Anxiety,
Self-test: Post-traumatic Stress

Under "Assess Relationship Health":
Self-test: Assess Your Relationships,
Self-test: Communication Skills, Self-test:
Violent Relationship

Under "Assess Lifestyle": General
Habits/Lifestyle, Nutrition, Exercise, En-
vironmental Health, Lifestyle Calculator

Under "Assess Addictions": Self-
test: Am I Addicted to Drugs?, Self-test:
Cybersex Addiction, Self-test: Sexual Ad-
diction, Self-test: Alcohol Problem

Disease prevention checklist:

General

- ✓ Be physically active / Are you physically active for at least 30 minutes most days of the week?
- ✓ Have healthy, mutually supportive relationships / Do you have people in your life whom you can confide in and rely on for support?
- ✓ Manage and reduce stress / Do you know what the sources of your stress are and do you have ways to reduce and/or manage them?
- ✓ Get sufficient quality sleep / Do you get seven to eight hours of sleep a night?
- ✓ Visit your health-care provider to screen for disease / Do you see your doctor at least once a year?

Other

- ✓ Work through unresolved problems / Do you know who you are and what you want so you can tackle challenges head on instead of freezing or fleeing from them?
- ✓ Avoid excessive caffeine / Do you drink no more than three cups of tea or coffee a day?

Anxiety at a Glance

How widespread an illness is it?

Anxiety disorders are one of the most common mental health issues. Every year, about 12 percent of Canadians report symptoms of anxiety.

What are its main symptoms?

A person with anxiety can't stop or control their negative thoughts, even if they know they're irrational. Because their mind is so consumed with worry, their concentration is frequently poor. They feel tired, irritable, and restless and/or have frequent muscle tension problems. At night, their restlessness may lead to insomnia and they often can't remember the last time they felt fully relaxed. They often sweat, blush, feel nausea, or stammer when doing something in public. Other physical symptoms may include an upset stomach, headaches, excessive perspiration, and even heavy or squeezing chest pain that makes them think they're having a heart attack.

Can anxiety be cured?

Yes. Anxiety is highly curable with the help of professional treatment. Unfortunately, almost half of all people with anxiety never seek treatment.

Where do I go if I want more information?

Contact: Anxiety Disorders Association of B.C., 103-237 East Columbia St. New Westminster, BC V3L-3W4
Web: www.anxietybc.com
Phone: 604-525-7566 / Fax: 604-525-7586

The Anxiety Disorders Association of B.C., in association with the B.C. Partners for Mental Health & Addictions Information (Here to Help), offers free information about mental health and mental illness. Call 604-669-7600 on the Lower Mainland or toll-free 1-800-661-2121. The line provides pre-recorded information 24/7 about services across B.C., as well as symptoms, causes, treatments, support groups, and publications. Press "0" at any time to speak to a staff member or volunteer.

Here to Help:

Web: www.heretohelp.bc.ca



Gastrointestinal Disorders

...protect that tract

The gastrointestinal or digestive tract is a series of joined and coiled tubes that stretch from the mouth to the anus. When you eat, food travels down the tract and is broken down into a form the body can use to nourish cells and provide energy. Medical problems that originate in the gastrointestinal tract are known as gastrointestinal disorders or digestive diseases. Among the most common are celiac disease, gastroesophageal reflux disease, inflammatory bowel disease, irritable bowel syndrome, and peptic ulcer disease.

Having celiac disease means you can't eat gluten, a protein found in wheat, rye, and barley, as well as in some medication. The immune system of a person with celiac disease responds to gluten by attacking the villi, small finger-like growths in the lining of the small intestine that normally absorb nutrients from digested foods. When the villi are damaged, the body can't get the nutrients it needs. As a result, people with celiac disease can experience anemia, malnutrition, skin rashes, and stomach pain, among other complications.

Gastroesophageal reflux disease (GERD), the most common gastrointestinal disorder, occurs when the contents of the stomach flow backward into the esophagus. The lower esophageal sphincter (LES), a muscle that lies at the base of the esophagus and the stomach and helps keep food in the stomach, is typically weak in someone with GERD.

Inflammatory bowel disease (IBD) refers to two chronic intestinal disorders: Crohn's disease and ulcerative colitis. These are characterized by inflammations affecting the inner lining of the large intestine, bowel, and colon. Onset peaks during young adulthood and, while remission is possible, the underlying condition persists and can flare up at any time.

Doctors refer to irritable bowel syndrome (IBS) as a functional disorder because although the colon shows no sign of disease when it's examined, people with IBS experience abnormal patterns of colonic movement. Their colon is highly sensitive, overreacting to any stimuli such as gas, stress, or eating high-fat or fiber-rich foods.

“Treatment can include medication, surgery, watchful waiting, dietary changes and exercise.”

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Peptic ulcer disease is a chronic inflammation of the stomach and duodenum. It results from a breakdown of the stomach's lining and duodenum caused by the bacterium *Helicobacter pylori* (*H. pylori*), along with increased stomach acid and pepsin.

Causes

Although the cause of most gastrointestinal disorders is unclear, current research suggests they may develop congenitally or from multiple factors such as stress, fatigue, diet, or smoking. Alcohol abuse is the greatest risk factor for gastrointestinal disorders, as well as increasing the likelihood of developing esophageal, colorectal, and liver cancer.

Celiac disease is hereditary, meaning it runs in families. GERD is widely believed to be linked to diet and lifestyle habits, hiatal hernia, obesity, and pregnancy. In addition, certain foods, including chocolate, fried or fatty foods, and alcohol may weaken the LES, permitting reflux and heartburn. Doctors don't know what causes Crohn's disease and ulcerative colitis, but a leading theory is that some agent, perhaps a virus or bacterium, alters the body's immune response, triggering an inflammatory reaction in the intestinal wall. The cause of IBS is similarly unknown.

In the 1950s, doctors thought stress and diet led to peptic ulcer disease. But in 1982, a strain of bacteria called *H. pylori* was isolated from the gastric biopsies of patients with chronic gastritis. *H. pylori*, which is found in almost 100 percent of patients with duodenal ulcers and 80 percent of patients with gastric ulcers, is now believed to be the major cause of peptic ulcer disease.

Symptoms

There are many types of gastrointestinal disorders and symptoms vary widely depending on the problem. In general, you should see your doctor if you have blood in your stool, changes in bowel habits, severe abdominal pain, unintentional weight loss,



and/or heartburn that you can't relieve with antacids.

Heartburn, characterized by burning pain that radiates through the chest, neck, and throat, is the most common symptom of GERD. It can occur when you eat, bend, or lie down.

Symptoms of celiac disease include gas, diarrhea, stomach pain, tiredness, mood swings, weight loss, a very itchy skin rash with blisters, and stunted growth. Most people with celiac disease have one or more symptoms, but not all have digestive problems. Some people with the disease don't have any symptoms at all.

An individual with IBD may experience persistent abdominal pain, bowel sores, diarrhea, fever, intestinal bleeding, or weight loss. Blood in the stool is the most common and distinct symptom of ulcerative colitis.

Patients with IBS often go through alternating bouts of constipation and diarrhea. A doctor may suspect IBS when a bowel movement or the passage of gas temporarily relieves abdominal pain and cramps.

Upper abdominal pain and nausea are the most common symptoms of peptic ulcer disease. Ulcer pains usually occur an hour or two after meals or in the early-morning hours and abate after food or antacids have been swallowed. A definitive diagnosis requires endoscopy, which also allows a doctor to obtain biopsy samples, if needed.

Diagnosis & treatment

Most gastrointestinal disorders are highly complex and have subtle symptoms, requiring patients to undergo

extensive and expensive diagnostic tests. Reaching a diagnosis requires a thorough and accurate medical history and physical examination. Typically, the doctor will then recommend laboratory tests, which may include a blood test, an upper or lower GI series of x-rays, an ultrasound, and endoscopic examinations of the colon, esophagus, stomach, or small intestine. In more complicated cases, the doctor may order more sophisticated tests, such as a CAT (computerized axial tomography) scan or MRI. The course of treatment depends on the diagnosis and can include prescription and non-prescription medication, surgery, watchful waiting, dietary changes and exercise.

Celiac disease is often hard to detect because its symptoms resemble those of many other gastrointestinal disorders. If your doctor thinks you have celiac disease, you'll probably need to take a blood test and follow your regular diet before and during testing. If the results come back positive, the doctor will perform a biopsy to confirm that celiac disease is the problem. The only treatment for celiac disease is a gluten-free diet. A dietician can work with you to teach you how to select gluten-free foods.

A complete clinical history is the key to diagnosing GERD. Depending on the nature and severity of symptoms, you may also have to undergo endoscopy. This is a simple procedure involving minimal discomfort in which your doctor looks into your stomach with a flexible light known as an endoscope. Lifestyle modification, such as eliminating cigarettes and avoiding high-fat foods, is the standard course of treatment. If you don't experience improvement through

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lifestyle changes alone, you may need to use antacids, which neutralize stomach acid for relatively short periods of time, or prescription histamine 2 blockers, which suppress acid. For severe cases of GERD, the doctor may prescribe a more potent inhibitor of gastric acid secretion, such as an acid pump inhibitor, or recommend surgery.

If your doctor thinks you have either Crohn's disease or ulcerative colitis, you'll likely undergo a variety of procedures and tests, such as endoscopy and barium GI X-rays, to confirm the diagnosis. Treatment options include medication, dietary changes, and surgery to remove diseased bowel. An estimated 20 to 25 percent of people with ulcerative colitis require surgery, which often effectively cures the disorder and enables them to resume a normal life.

IBS is frequently diagnosed after doctors exclude more serious intestinal diseases through a detailed medical history and complete physical examination. Treatment depends on the severity, nature, and frequency of symptoms and can range from lifestyle and dietary changes to antidepressants and psychotherapy.

Prevention

Stomach and intestinal disorders occur more readily when processed foods are eaten on a daily basis. These foods are far more difficult to digest than wholesome foods rich in enzymes and other essential nutrients. Ensuring you have adequate dietary fiber from fruit, raw vegetables, and whole grains can help to improve your digestive health and prevent gastrointestinal disorders.

Don't eat hastily or at irregular times, and adhere to a regular cycle of



sleep and exercise. Avoid drinking excessive amounts of coffee, tea, and alcohol. If you feel digestive upset, reduce or eliminate your intake of citrus fruits, chocolate, fatty and fried foods, spicy foods, garlic and onions, mint-flavoured foods, and tomato-based foods such as spaghetti sauce, salsa, chili, and pizza. All of these foods have been known to irritate the gastrointestinal tract.

Many gastrointestinal problems occur after antibiotic therapy, which attacks the good bacteria in the digestive tract along with the infection the antibiotics are being used to treat. Reseeding the digestive tract with quality acidophilus and bifidus supplements and foods can help to restore balance in digestive and immune function.

Living with a gastrointestinal disorder

Keep a journal in which you note the foods that seem to cause you distress and discuss your findings with your doctor. You may also want to consult a registered dietician who can help you make changes to your diet.

Careful eating can remove the symptoms of many gastrointestinal disorders. For instance, if dairy products cause your symptoms to flare up, try eating less of them. You might be able to tolerate yogurt better than other dairy products because it contains bacteria that supply the enzyme needed to digest lactose, the sugar found in milk products. If you need to avoid dairy products altogether, be sure to get adequate nutrients in substitute foods or with supplements.

In many cases, dietary fiber may reduce symptoms, particularly constipation. Doctors usually recommend a diet

with enough fiber to produce soft, painless bowel movements. High-fiber diets also keep the colon mildly distended, which may help prevent spasms. Whole-grain breads and cereals, fruit, and vegetables are good sources of fiber. Ground flaxseed provides a nutrient-dense fiber that promotes regularity. Drinking six to eight glasses of water a day is also essential, particularly if you have diarrhea.

Large meals can cause cramping and diarrhea, so eating smaller portions or smaller meals more often may ease symptoms. Eating meals that are low in fat and high in carbohydrates such as whole-grain pasta, rice, breads and cereals (unless you have celiac disease), fruit, and vegetables can also help. Vegetables and fruit that are usually well-tolerated include spinach, cucumber, avocado, cabbage, potato, banana, apples, melons and cantaloupe. These provide vital nutrients as well as enzymes for nutrient assimilation.

Some people with sensitive bowels may find raw foods too irritating. Eat lightly steamed veggies and slowly introduce raw foods as your system heals.

For breakfast, try soothing, mucilaginous foods such as ground flaxseeds in buttermilk, yogurt, or porridge. Plain unsweetened yogurt containing live culture creates a healthy bacterial environment in the intestine. Well-cooked grains, vegetables, and fruit, as well as congees of oats, barley or rice, are similarly beneficial.

Like the heart and the lungs, the gastrointestinal tract is partly controlled by the autonomic nervous system, which responds to stress. These nerves control the normal contractions of the colon and

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cause abdominal discomfort, which is why you experience cramps or “butterflies” when nervous or upset. In someone with a gastrointestinal disorder like IBS, the colon can be overly responsive to even slight conflict or stress. Stress also makes the mind more aware of the sensations that arise in the colon, making them perceive these sensations as even more unpleasant.

For all these reasons, stress management is an integral part of successfully managing a gastrointestinal disorder. Work on building your stress resilience and try stress-reduction techniques such as relaxation exercises, meditation, regular physical activity, and adequate sleep.

Role of family & friends

Having a gastrointestinal disorder places a huge burden on the mind and spirit, as well as on the digestive system. If someone you care about has a gastrointestinal disorder, you can make their life easier by:

- ✓ learning all you can about their condition
- ✓ asking them what you do that either helps or makes it harder for them manage their condition and what you can do to help them more
- ✓ talking about your feelings: their condition affects you, too, and telling your loved one how you feel can help improve your relationship
- ✓ offering to go to the doctor with them
- ✓ providing practical help, such as cooking them a tasty and healthy meal
- ✓ watching for warning signs of anxiety or depression and encouraging your loved one to seek help if they need it.

Many organizations exist to help people with gastrointestinal disorders. Try searching the Internet or Yellow Pages for a group that caters to people with the same condition as you or your loved one, such as the Canadian Celiac Association or the Crohn’s and Colitis Foundation.

Plan-it Health Online Tools (www.cutrust.com)

Learn all you can about your specific gastrointestinal disorder. Search for articles on it under “Search a Topic” in the Health Topic Search menu.

Depression, stress, and anxiety are common among people dealing with a gastrointestinal disorder. Read the articles and take the assessments under “Depression” and “Stress & Anxiety” in the Mental/Emotional Health menu.

A nutritious customized diet is one of the best defences against gastrointestinal disorders. Prepare healthy meals for yourself and your family using the “Healthy Recipes,” “Calorie/Nutrition Counter,” and “Meal Planner” in the Eating Well menu.

Health Tracker

Under “Assess Mental Emotional Health”: Emotional Health, Self-test: Stress Resilience, Self-test: What is Your Level of Stress?, Self-test: Anger Management, Self-test: Anxiety, Self-test: Post-traumatic Stress

Under “Assess Lifestyle”: General Habits/Lifestyle, Nutrition, Exercise, Environmental Health, Lifestyle Calculator

Under “Know Your Numbers/Biomarkers”: Blood Pressure, HDL Cholesterol, LDL Cholesterol, Total Cholesterol, Triglycerides, Resting Heart Rate, Ho-

homocysteine, Pedometer (Steps), Fasting Glucose, TSH, BMI, Calorie Count, Waist-to-Hip Ratio, Waist Circumference

Disease prevention checklist:

General

- ✓ Drink your recommended daily intake of clean water / Do you generally drink eight glasses of water or clear fluids a day?
- ✓ Eat right / Do you generally eat five servings of fruit and vegetables a day?
- ✓ Maintain good digestive health / Do you regularly eat fermented/probiotic foods?
- ✓ Manage and reduce stress / Do you know what the sources of your stress are and do you have ways to reduce and/or manage them?
- ✓ Visit your health-care provider to screen for disease / Do you see your doctor at least once a year?

Other

- ✓ Don't eat hastily or at irregular times / Do you always give yourself plenty of time to eat and stick to the same eating schedule?
- ✓ Avoid excessive caffeine / Do you drink no more than three cups of tea or coffee a day?

Gastrointestinal Disorders at a Glance

How widespread are these illnesses?

Gastrointestinal disorders are exceedingly common. Although their duration and severity varies widely in each individual case, they affect 20 million Canadians, or approximately 60 percent of the population, every year. Studies show that gastrointestinal disorders are a leading cause of hospital visits and workplace absenteeism.

What are their main symptoms?

Symptoms depend largely on the specific gastrointestinal disorder but can include chest and abdominal pain, bloating, trouble swallowing, constipation, diarrhea, and nausea or blood in the vomit or stool. Belching, liquid abdominal noises, poor appetite, and trouble sleeping are other possible symptoms.

Can gastrointestinal disorders be cured?

It depends on the disorder. In some cases, lifestyle modifications and medication (if necessary) can cure the disease; in others, the disease is chronic, although proper treatment can greatly relieve and even eliminate most symptoms.

Where do I go if I want more information?

Contact the association that specializes in the gastrointestinal disorder you're interested in, or contact:

Canadian Digestive Health Foundation
2511 Scotch Pine Dr.
Oakville, ON L6M 4C3
Web: www.cdhf.ca
Phone: 905-829-3949
Fax: 905-829-3949





Heart Disease

...let the beat go on

Coronary artery disease, usually called simply “heart disease,” occurs when the arteries that supply blood to the heart muscle become hardened and narrowed due to a build-up of fatty materials called plaque. When an artery becomes blocked with plaque, vital oxygen and nutrients can’t get to the heart. The result is a heart attack, which can cause permanent disability and even death.

Some people aren’t too concerned about heart disease because they think it can be “cured” with surgery. This is a myth. Heart disease is a lifelong condition: once you get it, you’ll always have it. It’s true that procedures such as angioplasty and bypass surgery can help blood and oxygen flow more easily to the heart. But the arteries remain damaged, which means that you’re still more likely to have a heart attack. What’s more, the condition of your blood vessels will steadily worsen unless you make changes in your daily habits and bring your risk factors under control.

A diseased heart can ruin your life by interfering with enjoyable activities, stop you from holding a job, and even prevents you from doing such simple things as taking a walk or climbing steps. That’s why you need to take action now to avoid heart disease.

Causes

There are a number of known heart disease risk factors, some of which you can control and others that you can’t. Risk factors you can control include high blood cholesterol and high triglyceride levels, high blood pressure, overweight and obesity, smoking, lack of physical activity, an unhealthy diet, and poor stress management. Risk factors that you can’t control are age, gender, and family history.

Your likelihood of developing heart disease increases with the number of risk factors you have and their severity. Some risk factors, such as smoking, put you at greater risk for heart disease and heart attack than others.

Symptoms

Most of the major risk factors for heart disease have no discernible symptoms. This includes the single most important risk factor, high blood pressure, which has been called “the silent killer.” Many people pay little attention to their blood pressure until they become seriously ill.

“By adopting sensible health habits you can decrease your risk of heart disease by 82 percent.”

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As plaque narrows the arteries and reduces blood flow to your heart, you may feel chest pain, especially when you're active. If the build-up is allowed to worsen, it can mostly or completely block the flow of oxygen-rich blood to the part of the heart muscle fed by the artery, causing a heart attack. This can occur with very little warning and may even cause death.

Heart failure is a related condition that develops if the heart muscle weakens. Some warning signs of heart failure are excessive tiredness, breathlessness from climbing stairs, and edema (swelling in the extremities).

Diagnosis & treatment

Your doctor can help you find out whether you have heart disease risk factors. They can also help create a plan for lowering your risk of heart disease, heart attack, and other heart problems.

High blood pressure increases the risk of heart disease more than any other factor. Everyone should aim for normal blood pressure levels.

If your blood pressure isn't too high, you may be able to control it entirely by losing weight, getting regular exercise, cutting down on alcohol, and changing your eating habits. A special dietary plan called DASH can help. DASH, which stands for "Dietary Approaches to Stop Hypertension," emphasizes fruit, vegetables, whole-grain foods, and low-fat or fat-free milk and milk products. It's rich in magnesium, potassium, calcium, protein, and fiber, and low in red meat, sweets, sugary beverages, and foods high in sodium (salt), which raises blood pressure.

If your blood pressure is still high even after you implement lifestyle changes, your doctor will probably pre-

scribe medication. Ask your doctor about changing the dosage or switching to another medication if you experience any unwelcome side effects.

High blood cholesterol is another major risk factor for heart disease that you may need to address. There are two main ways to lower cholesterol: through lifestyle changes alone or through lifestyle changes combined with medication.

One important treatment approach is called "Therapeutic Lifestyle Changes" or TLC for short. It includes a diet low in cholesterol and fat, moderate-intensity physical activity, and weight management. Maintaining a healthy weight and getting regular physical activity are especially important for those with metabolic syndrome. This is the name for a related grouping of health problems that includes high blood pressure, high triglycerides, low HDL cholesterol, large waist size, and high blood glucose levels.

If your cholesterol level remains too high, you may need to take medication while still following the TLC approach. This will keep the dosage as low as possible and reduce your risk in other ways, as well. You'll also need to control all of your other heart disease risk factors, including high blood pressure, diabetes, and smoking.

Prevention

Research shows that people can decrease their risk of heart disease enormously—by as much as 82 percent—simply by adopting sensible health habits. It's never too late to start protecting your heart health. A recent study showed that people ages 70 to 90 who led a healthy lifestyle lowered their likelihood of dying from heart disease by nearly two-thirds.

If you eat a nutritious diet, are physically active, maintain a healthy weight, and stop smoking, you'll help to keep your heart healthy. But doing just one or two of these "Big Four" isn't enough to protect your heart. To keep your heart strong and healthy, you need to practice all four lifestyle habits. Some people may need to take additional steps to prevent heart disease. If you have diabetes, for example, you'll also need to keep your blood-glucose levels under control. Eating a nutritious diet that's low in fats and sodium (salt), controlling your weight, and being more physically active will help keep your blood glucose at healthy levels. These steps will also reduce your chances of developing high blood pressure or high blood cholesterol.

If you're overweight, you're more likely to develop heart disease even if you have no other risk factors. The more overweight a person is, the more likely they are to develop heart disease. Even a small weight loss—just 5 to 10 percent of your current weight—will help lower your risk of heart disease and other serious medical disorders. The best way to take off pounds is to do so gradually through physical activity and a balanced, low-calorie diet. Consult your doctor, registered dietician, or qualified nutritionist to create a weight-loss program that works for you.

Stress is another important risk factor that you can do something about. Research shows that an emotionally upsetting event is the most commonly reported "trigger" for a heart attack. In addition, some common ways of coping with stress, such as overeating, heavy drinking, and smoking, are clearly detrimental for your heart. Regular physical

activity relieves stress as well as directly lowering your risk of heart disease. Stress management programs can also help you develop new ways of handling everyday life challenges. Good relationships count, too. Studies reveal that people with strong family and community ties have a reduced risk of heart disease.

Another negative emotional state that causes heart disease is depression. Longitudinal research by the University of Calgary shows that if someone is depressed, their risk of heart disease rises by 70%. This association holds up even after controlling for physical health variables, such as age, sedentary lifestyle, diabetes, family history of heart disease, etc. If you feel quite down and sad for more than two weeks, you may be depressed. Increased anger is also a cause for concern, as men sometimes experience or manifest depression as anger. Research shows that chronically angry people are at significantly higher risk of heart disease. In order to protect your heart, it may be helpful to see a psychotherapist or psychologist. They can help you understand your negative emotions, and work with you in resolving the issues that are troubling you.

Much remains to be learned about the connections between stress and heart disease, but a few things are clear: staying physically active, developing a wide circle of supportive people in your life, and sharing your feelings and concerns with them can help to prevent heart disease.

Living with heart disease

As little as 30 minutes of moderate-intensity physical activity five days a week can help to improve heart health. Examples of moderate-intensity activity

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include taking a brisk walk, light weightlifting, dancing, raking leaves, washing the car, house cleaning, or gardening. You can even divide your 30-minute activity into shorter periods of at least 10 minutes if you prefer. Before beginning any exercise program, however, you should always consult your doctor about what level of physical activity is appropriate for you.

A healthy diet is also crucial in controlling heart disease. Restrict your intake of the saturated fats found in meat and the trans fats found in shortening, margarine, and commercially processed foods. These harmful fats cause arteriosclerosis and heart disease by increasing cholesterol levels, thickening the blood, and contributing to plaque build-up along the artery walls. Foods high in sodium (salt), such as soups, microwaveable meals, salted snacks, and caffeinated beverages should likewise be avoided.

Use unrefined, cold-pressed nut and seed oils such as flaxseed, walnut, or pumpkin seed oils on salads and dishes that don't require heating. These oils contain beneficial omega-3 and omega-6 fatty acids, which help to lower cholesterol levels and improve circulation. Soybean products such as tofu prevent fats from depositing and are an excellent source of protein. Fish such as salmon, sardines, and mackerel provide protein as well as omega-3 fats.

Fresh fruit and green vegetables are rich in the vitamins and minerals your heart needs to stay healthy. Eat fruit and vegetables raw whenever possible to preserve enzymes and other nutrients. Garlic has been shown to reduce blood cholesterol and lower blood pressure. Avocados

are high in vitamin E, which increases the oxygen supply to the heart and strengthens the heart muscle.

Magnesium, which is found in figs, almonds, tofu, and wheat germ, helps to regulate heart-muscle activity. Oats contain B vitamins, which relieve stress and lower cholesterol levels.

Role of family & friends

People with heart disease must rely on friends and family members, especially since their condition places them at increased risk of a sudden heart attack. Everyone should know how to identify the symptoms of a heart attack and do CPR as well as get immediate medical help.

Not all heart attacks begin with sudden, crushing pain, as is often shown on TV or in the movies. The most common warning signs are uncomfortable pressure, squeezing, fullness, or pain in the center of the chest, along with discomfort in other areas of the upper body, shortness of breath, nausea, lightheadedness, and breaking out in a cold sweat. If you see these warning signs, call 911: treatment must occur within an hour to prevent permanent heart damage and possibly death.

If your loved one has been diagnosed with heart disease, you must help them eat healthfully and get sufficient rest. Ensure they take the medication the doctor has prescribed for them and refrain from heavy yard work, house cleaning, or other physically taxing projects, as well as from physical activity in very hot or cold weather. Help them out with chores, childcare, and other strenuous activities if they've had a heart attack or their heart disease is advanced.

Urge your loved one to call their doctor or call the doctor on their behalf if they have trouble breathing, chest pain, weakness, or an irregular heartbeat, experience side effects after starting a new heart medication, or become depressed for more than a few days.

If someone you care about has heart disease, you can make their life easier by:

- ✓ learning all you can about heart disease
- ✓ asking them what you do that either helps or makes it harder for them manage their risk factors and what you can do to help them even more
- ✓ talking about your feelings: heart disease affects you, too, and telling your loved one how you feel can improve your relationship
- ✓ offering to go to the doctor with them
- ✓ providing practical help, such as going with them on walks or cooking them a healthy meal
- ✓ watching for warning signs of anxiety or depression and encouraging your loved one to seek help if they need it.

Plan-it Health Online Tools (www.custrust.com)

Learn all you can about heart disease. Read the entry on “Heart Disease” under “Alphabetical Topic Search” and search for articles on “heart disease” under “Search a Topic” in the Health Topic Search menu.

Find out how to protect yourself from developing heart disease. Read “Avoiding Heart Disease” under “Avoiding Disease” in the Self-Care & Prevention menu.

A nutritious, well-balanced diet is one of the best defences against heart disease. Prepare healthy meals for yourself using the “Healthy Recipes,” “Calorie/Nutrition Counter,” and “Meal Planner” in the Eating Well menu.

Depression, stress, and anxiety are very common among people with heart disease. Read the articles and take the assessments under “Depression” and “Stress & Anxiety” in the Mental/Emotional Health menu.

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Watch short video tutorials on eating, exercise, losing weight, and nutrition under the Micro Video Library menu.

Health Tracker

Under "Assess Mental Emotional Health": Emotional Health, Self-test: Are You Depressed?, Self-test: Stress Resilience, Self-test: Mood Disorder, Self-test: What is Your Level of Stress?, Self-test: Anger Management, Self-test: Anxiety, Self-test: Post-traumatic Stress

Under "Assess Lifestyle": General Habits/Lifestyle, Nutrition, Exercise, Environmental Health, Lifestyle Calculator

Under "Assess Relationship Health": Self-test: Assess Your Relationships, Self-test: Communication Skills, Self-test: Strength of Your Marriage

Under "Know Your Numbers/Biomarkers": Blood Pressure, HDL Cholesterol, LDL Cholesterol, Total Cholesterol, Triglycerides, Resting Heart Rate, Homocysteine, Pedometer (Steps), Fasting Glucose, TSH, BMI, Calorie Count, Waist-to-Hip Ratio, Waist Circumference

Disease prevention checklist:

General

- ✓ Don't smoke / If you smoke, are you looking into signing up for a smoking-cessation program?
- ✓ Drink your recommend daily intake of clean water / Do you generally drink eight glasses of water or clear fluids a day?
- ✓ Eat right / Do you generally eat five servings of fruit and vegetables a day?
- ✓ Be physically active / Are you physically active for at least 30 minutes most days of the week?
- ✓ Have healthy, mutually supportive relationships / Do you have people in your life whom you can confide in and rely on for support?
- ✓ Manage and reduce stress / Do you know what the sources of your stress are and do you have ways to reduce and/or manage them?
- ✓ Visit your health-care provider to screen for disease / Do you see your doctor at least once a year?

Other

- ✓ Maintain a healthy weight / Are you aware of your BMI and eating and exercising properly so it's at an appropriate level?
- ✓ Avoid excessive caffeine / Do you drink no more than three cups of tea or coffee a day?

Heart Disease at a Glance

How widespread an illness is it?

According to the latest available statistics, 5.6 percent of all Canadians over the age of 20 have been diagnosed with heart disease. The actual incidence of the disease may be much higher, since many people who have it don't realize that they do. Nearly a third of all deaths in Canada are attributable to either heart disease or stroke.

What are its main symptoms?

Heart disease has few obvious symptoms until it's quite advanced. Chest pain and being out of breath or easily fatigued by strenuous physical activity are some of the warning signs.

Can heart disease be cured?

Yes and no. Hardening of the arteries due to plaque build-up is generally irreversible, but sticking to a heart-healthy diet, maintaining a sensible weight, and engaging in regular physical activity can help to prevent the disease from progressing for people with heart disease risk factors.

Where do I go if I want more information?

Contact: Heart and Stroke Foundation of B.C. & Yukon, 1212 West Broadway
Vancouver, BC V6H 3V2
Web: www.heartandstroke.bc.ca
Phone (604) 736-4404
Fax (604) 736-8732





Cancer

...when cells go wild

Cancer is a group of diseases that begin in cells, the body's basic building blocks. Cells grow and divide to produce more cells to keep the body healthy. Occasionally, though, something goes wrong in this orderly process. New cells are created when the body doesn't need them and old cells don't die when they should. The extra cells form a mass of tissue called a tumor.

Not all tumors are cancerous. Benign tumors, which aren't cancer, can usually be removed and, in most cases, don't come back.

Malignant tumors are cancer. They're made of abnormal cells that divide without order, invading and destroying surrounding tissue. They can also break away from the original tumor, enter the bloodstream or lymphatic system, and form new tumors elsewhere throughout the body—a process known as metastasis.

Causes

Scientists now know that cancer is caused by changes in genes that control the growth and death of cells. Certain lifestyle and environmental factors can transform normal genes into genes that allow cancer to start and spread, including an unhealthy diet, smoking, exposure to ultraviolet (UV) radiation, and exposure to cancer-causing substances called carcinogens.

Although some gene alterations are passed down from parent to child, having an inherited gene alteration doesn't always mean you'll develop cancer: it only means that your chances of getting cancer are increased. Scientists are continuing to study factors that may raise or lower the risk of developing cancer.

There's also some evidence that people struggling with unresolved stress or grief are more vulnerable to cancer. But while an inability to deal effectively with stress is definitely detrimental to the immune system, many factors must coexist for cancer to occur.

“There's still no “silver-bullet” cure for cancer, but many forms of cancer are highly treatable.”

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Symptoms

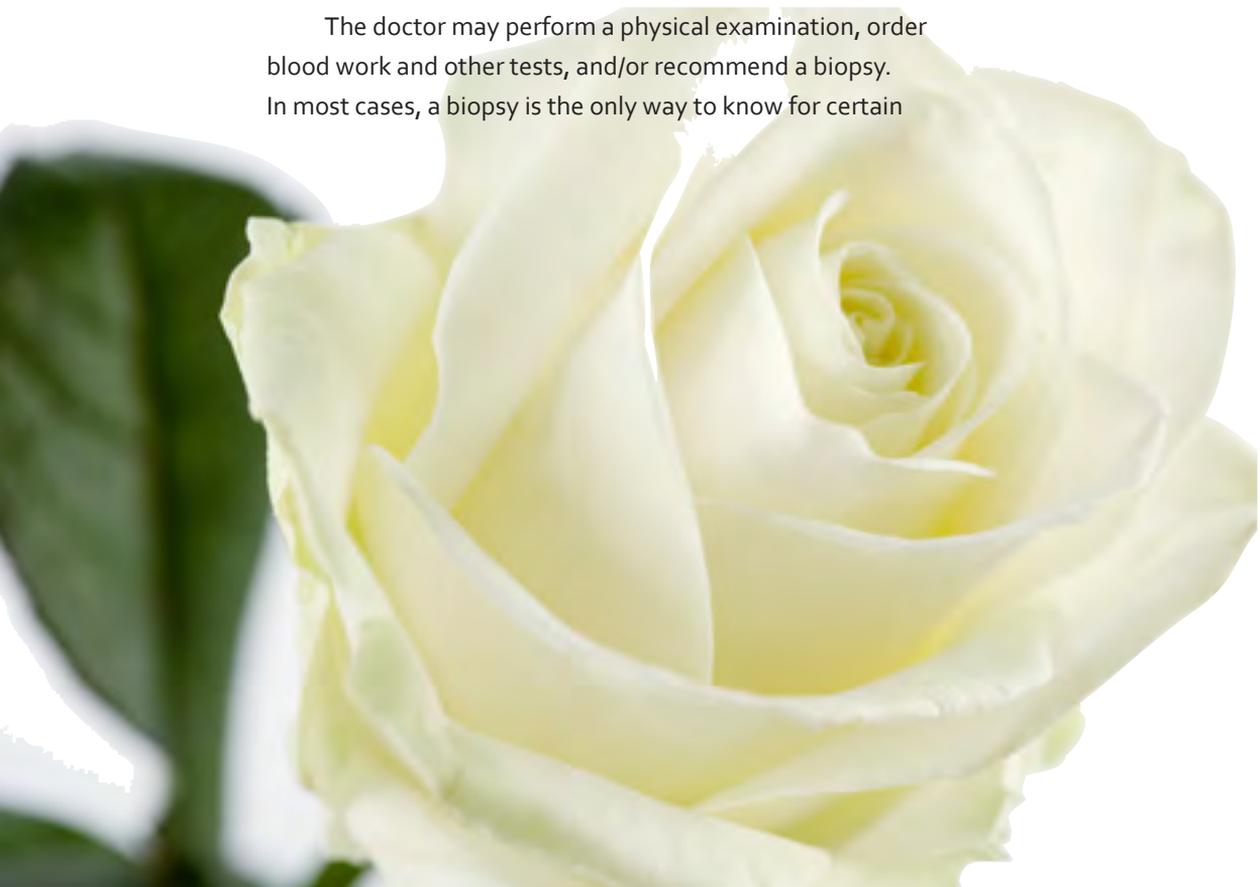
The fear of cancer stems in part from the fact that few symptoms are readily apparent until the disease is quite advanced. Any unusual changes should be investigated, especially abnormal bleeding or lumps and problems that don't go away with time or regular treatments. These could include a new mole or an obvious change in the appearance of an existing wart or mole, a sore that won't heal, a nagging cough or hoarseness, changes in bowel or bladder habits, persistent indigestion or difficulty swallowing, and any unusual discharges. Excessive fatigue, appetite loss, and unexplained weight loss are more general symptoms that indicate something's wrong.

Most lumps are harmless, and tiredness and weight loss may be attributable to another illness, but cancer should always be ruled out first. Cancer is more effectively treated when caught in its initial stages, with regular check-ups and personal awareness being critical to its early detection.

Diagnosis & treatment

Many symptoms associated with cancer aren't necessarily caused by cancer. They can be caused by infections, benign tumors, or other problems. It's important to see a doctor about any possible symptoms or other physical changes, since only a doctor can make a diagnosis. Don't wait until something feels wrong: in its beginning stages, cancer usually doesn't cause any pain.

The doctor may perform a physical examination, order blood work and other tests, and/or recommend a biopsy. In most cases, a biopsy is the only way to know for certain



whether the symptoms are related to cancer: the doctor or surgeon removes a sample of tissue from the abnormal area and a pathologist examines the tissue for cancer cells.

If the diagnosis is cancer, treatment will likely begin right away. Treatment options can include surgery, radiation therapy, chemotherapy, hormone therapy, and biological therapy. The doctor may use one method or a combination of methods, depending on the type and location of the cancer, whether the disease has spread, your age and general health, and other factors.

Because treatment for cancer can also damage healthy cells and tissues, it often causes side effects. Some patients may worry that the side effects of treatment are worse than the disease. Your doctor will probably discuss treatment options with you, weighing the likely benefits of killing cancer cells and the risks of possible side effects. You'll also learn ways to reduce or eliminate problems that may occur during and after treatment.

Surgery is sometimes used to remove cancer. The side effects of surgery depend on many factors, including the size and location of the tumor, the type of operation, and your general health. You may experience some pain after surgery, but this pain can be controlled with medication.

Radiation therapy uses high-energy rays to kill cancer cells in a targeted area. Radiation can be given externally by a machine that aims radiation at the tumor area, or internally, through placing needles, seeds, wires, or catheters containing a radioactive substance

in or near the tumor. Radiation treatments are painless and their side effects are usually temporary. But they can be exhausting, especially in the later weeks of treatment, and they cause a decrease in the white blood cells that help protect you against infection. External radiation sometimes leads to temporary hair loss in the treated area and makes the skin red, dry, tender, and itchy. With internal radiation (also called implant radiation), you may need to stay in the hospital and away from other people while the radiation level is highest.

Chemotherapy uses drugs to kill cancer cells throughout the body. In the process, healthy cells can also be harmed, especially those that divide quickly. The doctor may use one drug or a combination of drugs. The side effects depend mainly on the drugs and dosages you receive: hair loss is common, but not all chemotherapy drugs cause it. Chemotherapy may also lead to temporary fatigue, poor appetite, nausea and vomiting, diarrhea, and mouth and lip sores, although certain medications can reduce these problems. Normal cells usually recover when chemotherapy is over, so most side effects will gradually disappear once treatment ends.

Hormone therapy can treat certain cancers that depend on hormones for their growth by keeping cancer cells from getting or using those hormones. This may include the use of drugs that stop the production of certain hormones or that change the way hormones work. Or, it may involve surgery to remove organs that make hormones, such as removing ovaries or testicles to treat breast and prostate cancer. Hormone therapy can cause a number of side effects. In addition,

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tion to feeling tired, you may have fluid retention, weight gain, hot flashes, nausea and vomiting, changes in appetite, and, in some cases, blood clots. Hormone therapy can also lead to bone loss in premenopausal women. Depending on the type of hormone therapy, these side effects may be temporary, long-lasting, or permanent.

Biological therapy uses the body's immune system, directly or indirectly, to fight disease and, at the same time, lessen certain side effects associated with cancer treatment. Monoclonal antibodies, interferon, interleukin-2, and colony-stimulating factors are all types of biological therapy. While the side effects of biological therapy vary by treatment, they typically include flu-like symptoms, such as chills, fever, muscle aches, weakness, loss of appetite, nausea, vomiting, and diarrhea. You may also bleed or bruise easily, get a skin rash, or experience swelling. These problems can be severe, but they should go away once treatment stops.

Prevention

There's no guaranteed way to prevent cancer, but you can greatly reduce your risk of developing it by not using tobacco products, exercising regularly, maintaining a healthy weight, avoiding harmful UV rays, and eating foods with less fat and more vegetables, fruit, and whole grains.

Research has found diet to be directly related to the prevention and treatment of a number of cancers, including breast, endometrial, and prostate cancer, as well as stomach and intestinal cancer. Diets that are low in fiber, fruit, and vegetables but high in saturated and trans fats are associated with higher rates of cancer.

The antioxidants in fruit and vegetables attack free radical molecules, which damage tissue, interfere with metabolism, and encourage the development of cancerous tumors. Green, leafy vegetables, bell peppers, tomatoes, broccoli, and raw fruit, especially citrus fruits, contain the powerful antioxidant



vitamin C. Beta-carotene (vitamin A) is an even more potent antioxidant for fighting cancer: its best dietary sources are carrots, beetroot, squash, yams, cantaloupe, apricots, peaches, papaya, and mango. Another important antioxidant, vitamin E, is found in avocados and asparagus.

Vegetables and fruit also help to prevent cancer because they're rich in various substances that inhibit the growth of tumors. Cruciferous vegetables such as cabbage, turnip, kale, cauliflower, broccoli, and Brussels sprouts contain indoles, which interrupt signals that cause certain cells to proliferate, especially in the stomach, colon, and breasts. Lignans in ground flaxseeds and isoflavones from soybeans can reduce the risk of cancer by blocking estrogen receptors. In addition, soybeans contain protease inhibitors, which may prevent the early development of malignancies.

Cancer researchers have recently hailed vitamin D as helping to reduce the risk of colorectal, breast, and prostate cancer. Although milk is often fortified with vitamin D, the Canadian Cancer Society advises taking it in the form of a supplement. Adults should consider taking a daily vitamin D supplement of 1,000 international units (IU) during the fall and winter, while adults who are older, dark-skinned, and not often outdoors should consider taking the same dosage all year round. Vitamin D₃ (cholecalciferol) is the natural form of the vitamin and is used by the body 500 times more easily than synthetic vitamin D₂ (ergocalciferol).

The body itself produces vitamin D naturally upon exposure to sunlight. But too much sun can increase the risk of skin cancer due to UV radiation, so stay indoors or in the shade when the UV

index is high. Safe, non-burning sunlight exposure is your best source of vitamin D.

While you can do many things to lower your risk of cancer, some risk factors, such as inherited conditions, are unavoidable. It's important to know if you have them, but bear in mind that most people with a single risk factor won't get cancer. You can help protect yourself by eliminating risk factors whenever possible and getting regular checkups so that, if cancer does develop, it can be caught and treated promptly. Screening exams, such as colonoscopy, prostate checks, mammography, and the Pap test, can detect precancerous conditions and early-stage cancer.

Overcoming cancer

Treatment can often effectively eradicate cancer from the body. However, if you've overcome cancer in the past, you must have regular check-ups to ensure the disease has not returned. Maintaining a healthy lifestyle is crucial to ensuring a cancer-free future.

Research suggests that excess fats—especially saturated animal fats from beef, the trans-fatty acids in artificially-hardened (hydrogenated) vegetable oils such as shortening or margarine, and refined vegetable oils—increase the risk of cancer. These unhealthy fats promote or initiate the production of carcinogens. On the other hand, the good fats found in unrefined, cold-pressed nut and seed oils such as flaxseed oil, sunflower oil, and walnut oil can play an important role in cancer prevention. Use them daily on salads, baked potatoes, or any dishes that don't require heating, since high temperatures will damage their essential fatty acids.

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Fresh vegetables and fruit should replace meat as the mainstay of your diet. Eat them raw whenever possible to preserve enzymes and other heat-sensitive nutrients. All vegetables and fruit can be made into fresh juices for optimum nutrient absorption. Whole grains and ground flaxseeds should also form part of your cancer-fighting diet, since they contain vegetable lignan, which has anti-tumor and antioxidant properties.

It's difficult to engage in exercise if you're undergoing treatment for cancer, especially a physically draining form of treatment like chemotherapy. But physical activity can help you to improve both your mental and physical health. Ask your doctor or cancer-care team to recommend activities you can safely engage in to stay fit.

It's never too late to start living a healthy, natural lifestyle. In many cases, you can overcome cancer or learn to cope with it successfully.

Role of family & friends

No one needs to face cancer alone. When people with cancer seek and receive help from others, they often find it easier to cope.

Family and friends can support you in many ways. But they may be waiting for you to offer them hints or ideas about what to do. When someone says, "Let me know if there's anything I can do," tell them if you need help with an errand or a ride to the doctor's office.

You may also want to meet people who have cancer now or have had it in the past so you can discuss things you can't with others. Let your doctor or nurse know that you want to talk to other people with cancer. You can also meet

other people with cancer in the hospital or through a cancer support group, which allows you and your loved ones to talk with others facing the same problems. Call the Canadian Cancer Society or your local hospital and ask for information about local cancer support programs.

If someone you care about has cancer, you can make their lives easier by:

- ✓ keeping them company, giving them a hug, or holding their hand
- ✓ listening as they talk about their hopes and fears
- ✓ helping with rides, meals, errands, or household chores
- ✓ going with them to doctor's visits or treatment sessions
- ✓ telling other friends and family members about ways they can help.

Plan-it Health Online Tools (www.cutrust.com)

Learn all you can about cancer. Read the entry on "Cancer" under "Alphabetical Topic Search" in the Health Topic Search menu and search for articles on "cancer" under "Search a Topic" in the Health Topic Search menu.

Depression, stress, and anxiety are very common among people dealing with cancer. Read the articles and take the assessments under "Depression" and "Stress & Anxiety" in the Mental/Emotional Health menu.

Health Tracker

Under "Assess Mental Emotional Health": Emotional Health, Self-test: Are You Depressed?, Self-test: Stress Resilience, Self-test: Mood Disorder, Self-test: What is Your Level of Stress?, Self-test: Anger Management, Self-test: Anxiety, Self-test: Post-traumatic Stress

Under "Assess Lifestyle": General Habits/Lifestyle, Nutrition, Exercise, Environmental Health, Lifestyle Calculator

Under "Know Your Numbers/Biomarkers": HDL Cholesterol, LDL Cholesterol, Total Cholesterol, Pedometer (Steps), Mammogram, PSA, TSH, BMI, Calorie Count, Waist-to-Hip Ratio, Waist Circumference

Disease prevention checklist:

General

- ✓ Don't smoke / If you smoke, are you looking into signing up for a smoking-cessation program?
- ✓ Eat right / Do you generally eat five servings of fruit and vegetables a day?
- ✓ Be physically active / Are you physically active for at least 30 minutes most days of the week?
- ✓ Manage and reduce stress / Do you know what the sources of your stress are and do you have ways to reduce and/or manage them?
- ✓ Ensure your home and work environment is healthy / Has your home ever been professionally inspected to check for any signs of indoor pollution, such as mold or radon gas?
- ✓ Get sufficient quality sleep / Do you get seven to eight hours of sleep a night?
- ✓ Visit your health-care provider to screen for disease / Do you see your doctor at least once a year?

Other

- ✓ Maintain a healthy weight / Are you aware of your BMI and eating and exercising properly so it's at an appropriate level?
- ✓ Get the recommended dosage of vitamin D₃ / Are you taking a daily vitamin D supplement of 1,000 international units (IU) during the fall and winter?

Cancer at a Glance

How widespread an illness is it?

Almost every Canadian knows someone with cancer or has experienced it themselves. Four out of every 10 Canadian women and 45 percent of Canadian men will develop the disease at some point in their lifetime. Cancer has also emerged as the leading cause of death in Canada, killing an estimated one out of every four Canadians.

What are its main symptoms?

Symptoms vary greatly depending on the type of cancer and its location. Any abnormal changes in the body may potentially be signs of cancer, especially unusual bleeding, discharges, or lumps. Other problems that develop and persist, such as headaches, numbness, or a cough or hoarseness, should also be investigated as possible symptoms.

Can cancer be cured?

Yes and no. There's still no "silver-bullet" cure for cancer, but many forms of cancer are highly treatable, especially if they're caught in their early stages. And while diagnoses of cancer are on the rise, survival rates are also increasing.

Where do I go if I want more information?

Contact: Canadian Cancer Society
#230 - 3689 East 1st Ave.
Vancouver, BC V5M 1C2
Web: www.cancer.ca
Phone: 604-253-8470 or
1-888-229-8288
Fax: 604-253-8403

The Canadian Cancer Society also operates the Cancer Information Service, a confidential, bilingual service available to cancer patients, their families, and the general public. Information specialists take time to answer your questions in clear understandable terms and search for the information you need. Call toll-free 1-888-939-3333 (for TTY, call 1-866-786-3934) from Monday-Friday, 9 a.m. to 6 p.m.



Diabetes

...the silent culprit

Diabetes is a metabolic disorder that disrupts the way the body uses food for energy and growth. Digested food is broken down into molecules including glucose (blood sugar), the main source of fuel for the body. The hormone insulin is the agent that helps move glucose from blood into the cells so that it can be used for energy. In people with diabetes, however, the pancreas either produces little or no insulin or the cells don't respond appropriately to insulin. As a result, glucose builds up in their blood, overflows into their urine, and passes out of their body.

There are two main types of diabetes: type 1 and type 2. Type 1 (or juvenile) diabetes is an autoimmune disease in which the body's white blood cells attack insulin-producing cells in the pancreas. As with other autoimmune diseases, viral infections or extreme stress can be triggers. Type 2 (non-insulin dependent) diabetes is the most common form of the disease. It can generally be treated with dietary measures, making insulin administration unnecessary.

Both forms of diabetes are precursors to many other illnesses, especially if diet and exercise aren't properly managed. Kidney disease, nerve damage (neuropathy), and blindness are among the most common and serious complications associated with poorly managed diabetes. Numerous other illnesses can develop as well, including arteriosclerosis, heart disease, leg ulcers, and high blood pressure. Diabetes is a leading cause of death and disability in North America.

Causes

Type 1 diabetes is an autoimmune disease in which the immune system attacks and destroys the pancreas's insulin-producing beta cells. As a result, the pancreas produces little or no insulin and people with type 1 diabetes must take insulin daily to live. While scientists don't fully understand why the immune system attacks the beta cells, many believe that genetic and environmental factors, possibly viruses, may play a role. Type 1 diabetes, which accounts for 5 to 10 percent of diagnosed cases, occurs most often in childhood but can develop at any age.

“Regular check-ups with a doctor are crucial, since some people with diabetes or pre-diabetes don't experience any discernible symptoms.”

CONT...

About 90 to 95 percent of people with diabetes have type 2. In the disease's early stages, the pancreas is still producing sufficient insulin, but the cells can't use the insulin effectively (insulin resistance). Insulin production steadily decreases, so glucose builds up in the blood and the body has to struggle to make use of its main source of fuel. This form of diabetes is most often associated with obesity, a family history of diabetes, and physical inactivity. Four out of every five people who have type 2 diabetes are overweight.

A person's mood also has a significant impact on the risk of developing diabetes. Even after adjusting for physical health characteristics, researchers have found that people who are depressed have a 60% higher chance of developing diabetes than people who are not depressed.

Symptoms

Type 1 diabetes often develops at a young age. The symptoms begin fairly suddenly, causing fatigue, frequent urination, weight loss, and muscle weakness despite almost constant hunger. Nausea and vomiting are common. If these first signs pass unnoticed and blood glucose levels become too high, a condition known as diabetic ketoacidosis may develop. This is a serious medical emergency with symptoms that include flushed, hot, dry skin, rapid and deep breathing, confusion and drowsiness, loss of appetite, abdominal pain, and vomiting.

People with type 2 diabetes feel intense thirst and an uncommonly frequent need to urinate as a result of a high sugar content their urine. Overall resistance to illness is low and skin infections heal poorly. Constant fatigue, itchy skin, blurred vision, impotence, tingling in the hands and feet, and headaches are other possible symptoms of the disease. Type 2

diabetes often goes undetected for years before symptoms worsen to the point that they arouse suspicion.

People with pre-diabetes have blood glucose levels that are higher than normal but not high enough for a diagnosis of diabetes. Pre-diabetes is also called impaired fasting glucose (IFG) or impaired glucose tolerance (IGT), depending on the test used to diagnose it. People with pre-diabetes are likely to develop type 2 diabetes within 10 years unless they take steps to prevent it. The condition also raises their risk of heart disease and stroke.

Diagnosis & treatment

Regular check-ups with a doctor are crucial, since some people with diabetes or pre-diabetes don't experience any discernible symptoms. The glucose tolerance test is the preferred test for diagnosing diabetes in children and non-pregnant adults. The earlier the disease is diagnosed, the sooner the person can take steps to manage it and prevent or delay any complications.

People with type 1 diabetes require regular insulin administration. The amount of insulin must be balanced with food intake and daily activities. Blood glucose levels must be closely monitored through frequent checks as well as a periodic blood test called the A1C. Results of the A1C test reflect average blood glucose over a two- to three-month period.

Healthy eating, physical activity, and blood glucose testing are the basic management tools for type 2 diabetes. In addition, many people with type 2 diabetes may require oral medication and possibly insulin to control their blood glucose levels.

If you've been diagnosed with diabetes, you'll have to take responsibility

for your day-to-day care in partnership with your doctor and health-care team. Much of diabetes management involves balancing blood glucose levels and reducing the risk of complications, especially heart disease. At least 65 percent of people with diabetes die of a heart attack or stroke. As a result, controlling blood pressure and cholesterol levels through diet, exercise, and medication can often be as important as controlling blood glucose levels.

Prevention

Research shows that people at high risk for type 2 diabetes can sharply reduce their chances of developing the disorder through diet and exercise. A major study of more than 3,000 people with pre-diabetes found that a 5 to 7 percent weight loss—about 10 to 14 pounds in a person who weighs 200 pounds—lowered the incidence of type 2 diabetes by 58 percent. Study participants lost weight by cutting fat and calories in their diet and by walking or doing other moderate-intensity exercises at least 30 minutes a day, five days a week.

Because people who are depressed are at higher risk of diabetes, being able to acknowledge and heal negative emotions will help prevent it. It is common for excess weight to be a manifestation of negative emotions. People may eat to soothe themselves when they are stressed, lonely, or frightened. Seeing a psychotherapist can help you to understand and process negative emotions appropriately. As a result, you will feel less pressure to turn to food, and will have more success controlling your weight.

Recent analyses of data have added to the growing accumulation of evidence that lifestyle changes are highly effective in decreasing the risk of conditions associated with type 2 diabetes, including

high blood pressure and the metabolic syndrome. Researchers have also confirmed that people who are genetically predisposed to diabetes benefit as much or more from lifestyle changes as people without the same gene variant.

Living with diabetes

The optimal diet for managing diabetes is low in simple sugars, which adversely affect glucose tolerance, and high in complex carbohydrates and fibers, which improve insulin sensitivity and stabilize blood-glucose levels.

Many experts believe the recent increase in cases of type 2 diabetes is linked to the high sugar content of the typical North American diet. Baked goods, soda pop, and alcoholic beverages contain massive amounts of sugar and even processed foods and canned goods have sugar added. Refined carbohydrates in the form of white flour, white rice, and pasta also count as simple sugars. Raw fruit, vegetables, and whole grains containing natural fibers ensure a slow release of carbohydrates into the bloodstream, putting less of a burden on the pancreas.

Saturated fats in meat and trans-fats in margarines and commercial vegetable oils are also detrimental, since they are hard on the liver. Large, heavy meals tax the digestive system and pancreas. Unfortunately, restaurants reinforce this unhealthy diet, whether they serve fast foods or not.

Your diet should consist largely of whole grains, especially oats, as well as fruit and vegetables. Include plenty of legumes such as peas and beans, which contain water-soluble fiber, as does apple pectin. Eating two apples or drinking a milkshake of skim milk, vanilla, and apple pectin before a meal significantly reduces

the amount of insulin needed to return blood-glucose levels to normal after eating. Watercress and horseradish also have a healing effect on the pancreas. Use them regularly in meals, adding horseradish in small quantities only.

Since it contains chromium, make liberal use of nutritional yeast, a deactivated form of yeast used as a condiment that can be purchased in the bulk section of health-food stores. A deficiency in chromium is associated with diabetes. Onions and garlic can also help to lower blood-glucose levels because of their active ingredients allyl propyl disulphide (APDS) and diallyl disulphide oxide (allicin). Yeast and yeast extracts can also help to stimulate the pancreas if it's not secreting sufficient amounts of insulin. You can use yeast for seasoning and as a sandwich spread.

As you begin to manage your diabetes through diet, you should try to learn about the glycemic index of foods. Foods with a high glycemic index are rapid inducers of insulin, increase cravings for sweets, and lead to greater weight gain, higher triglycerides, and increased cholesterol.

In addition to sensible eating, be sure to get at least 30 minutes of moderate-intensity exercise each day. Work with a health professional to design and implement an exercise regimen that will allow you to achieve your weight goals. Exercise will help control your weight, lower your risk of heart disease, and improve the way your body processes glucose into energy.

Role of family & friends

Diabetes is tough. When you have diabetes, you need to eat healthy food, stay active, control your weight, take your medication, and monitor your blood glucose. And that's on top of handling all

the other pressures of life. No wonder a person with diabetes can feel stressed out and afraid.

If someone you care about has diabetes, you can make their life easier by:

- ✓ learning all you can about diabetes
- ✓ asking them what you do that either helps or makes it harder for them manage their diabetes, and what you can do to help them even more
- ✓ talking about your feelings: diabetes affects you, too, and telling your loved one how you feel can improve your relationship
- ✓ offering to go to the doctor with them
- ✓ providing practical help, such as going with them on walks or cooking them a healthy meal
- ✓ joining them in enjoying a healthy low-sugar diet
- ✓ watching for warning signs of anxiety or depression and encouraging your loved one to seek help if they need it.

The Canadian Diabetes Association offers many local programs for people with diabetes and their families. Contact them to find out about resources and support groups in your area.

Plan-it Health Online Tools (www.cutrust.com)

Learn all you can about diabetes. Read the entry on "Diabetes" under "Alphabetical Topic Search" and search for articles on "diabetes" under "Search a Topic" in the Health Topic Search menu.

Find out how to protect yourself from developing diabetes. Read "Avoiding Diabetes" under "Avoiding Disease" in the Self-Care & Prevention menu.

A nutritious, well-balanced diet is one of the best defences against diabe-

tes. Prepare healthy meals for yourself and your family using the “Healthy Recipes,” “Calorie/Nutrition Counter,” and “Meal Planner” in the Eating Well menu.

Watch short video tutorials on eating, exercise, losing weight, and nutrition under the Micro Video Library menu.

Depression, stress, and anxiety are very common among people dealing with diabetes. Read the articles and take the assessments under “Depression” and “Stress & Anxiety” in the Mental/Emotional Health menu.

Health Tracker

Under “Assess Mental Emotional Health”: Emotional Health, Self-test: Are You Depressed?, Self-test: Stress Resilience, Self-test: Mood Disorder, Self-test: What is Your Level of Stress?, Self-test: Anger Management, Self-test: Anxiety, Self-test: Post-traumatic Stress

Under “Assess Lifestyle”: General Habits/Lifestyle, Nutrition, Exercise, Environmental Health, Lifestyle Calculator

Under “Know Your Numbers/Biomarkers”: Blood Pressure, HDL Cholesterol, LDL Cholesterol, Total Cholesterol, Triglycerides, Resting Heart Rate, Homocysteine, Pedometer (Steps), Fasting Glucose, TSH, BMI, Calorie Count, Waist-to-Hip Ratio, Waist Circumference

Disease prevention checklist:

General

- ✓ Don't smoke / If you smoke, are you looking into signing up for a smoking-cessation program?
- ✓ Eat right / Do you generally eat five servings of fruit and vegetables a day?
- ✓ Be physically active / Are you physically active for at least 30 minutes most days of the week?
- ✓ Manage and reduce stress / Do you know what the sources of

your stress are and do you have ways to reduce and/or manage them?

- ✓ Visit your health-care provider to screen for disease / Do you see your doctor at least once a year?

Other

- ✓ Maintain a healthy weight / Are you aware of your BMI and eating and exercising properly so it's at an appropriate level?
- ✓ Learn about the glycemic index of foods / Do you know which foods are rapid inducers of insulin and which ones help to stabilize blood glucose levels?

Diabetes at a Glance

How widespread an illness is it?

Diabetes is one of the most widespread chronic diseases. More than 2 million Canadians, or about 5.5 percent of the population, have been diagnosed with diabetes.

What are its main symptoms?

Common symptoms associated with diabetes include an unusually strong thirst and need to urinate, fluctuations in weight, extreme fatigue or lack of energy, blurred vision, frequent or recurring infections, cuts and bruises that are slow to heal, tingling or numbness in the hands or feet, and (for men) trouble getting or maintaining an erection. In some cases, a person can have diabetes but not have any symptoms.

Can diabetes be cured?

No, diabetes can't be cured. However, successful treatment of type 2 diabetes through diet, physical activity, and stress management can help to counteract and even reverse symptoms.

Where do I go if I want more information?

Contact: Canadian Diabetes Association
360-1385 8th Avenue W
Vancouver BC V6H 3V9
Web: www.diabetes.ca
Phone: 604-732-1331 or
1-800-BANTING (226-8464)



Addiction

...the deadly dopamine surge

Addiction is a brain disease that causes compulsive drug seeking and use, despite harmful consequences to the addict and those around them. Although the initial decision to take drugs is usually voluntary, changes in the brain caused by repeated drug abuse can eventually affect a person's self-control and ability to make sound decisions, while sending intense impulses to continue taking drugs.

The term "addiction" can also be used to refer to any physical or psychological dependency in which the addicted person feels a compulsive need to repeat the experience. For certain individuals, food, sex, or gambling can be as addictive as any drug. Even tasks can be addictive, including exercising, working, and surfing the Internet.

Alcoholism is the most common and serious addiction because of the devastation it wreaks upon individuals, families, and communities. Chronic alcohol use affects the brain and nervous system, which control behavior and bodily functions as well as the pancreas and liver. No body system is left untouched: irregular heartbeats, polyneuropathy causing tingling and numbness, stomach pain from inflammation of the stomach lining, and impotence are just some of the many side effects. Alcoholism also disrupts the immune system, hindering its ability to fight disease.

Causes

Poor emotional health underlies most addictions. Alcoholism tends to run in families and learned behavior certainly plays a role, but several factors must be present for an addiction to develop. An inability to deal with an emotional problem is often a trigger, since addictions are more likely to begin at emotionally difficult periods of life. The social acceptance of medicinal drugs and alcohol also encourages use and dependencies.

Addictive behaviors and drugs target the brain's reward system by flooding the circuit with the neurotransmitter dopamine, a chemical that helps to control movement, emotion, motivation, and feelings of pleasure. The overstimulation of this system, which normally responds to natural behaviors

“An inability to deal with an emotional problem is often a trigger for addiction.”

CON7...

linked to survival such as eating and spending time with loved ones, produces euphoric effects in response to the drug or addictive behavior. This reaction sets in motion a pattern that “teaches” people to keep doing it.

The brain adapts to overwhelming surges in dopamine by producing less dopamine or reducing the number of dopamine receptors in the reward circuit. As a result, dopamine’s impact on the reward circuit is lessened, reducing the addict’s ability to enjoy the drugs and/or activities that previously brought pleasure. This decrease compels the addict to keep using in order to attempt to bring their dopamine function back to normal. They may also require larger amounts of the drug than they first did to achieve the dopamine high.

Symptoms

Brain imaging studies of drug-addicted individuals show changes in areas of the brain that are critical to judgment, decision-making, learning and memory, and behavior control. Many addicts indulge in their addiction secretly in an attempt to avoid admitting to the problem or confronting it. Often, performance levels fall and cause problems at work. Signs of depression, irritability, and aggression may be more or less severe. The addict may also experience short-term memory loss and blackouts. If heavy use continues, paranoia and hallucinations can result.

Diagnosis & treatment

Alcoholism and other addictions are curable, but because addiction changes the brain, it can be highly challenging for you to stop using. Moreover, since the disease begins slowly without noticeable signs and symptoms, addiction can be hard to recognize. Friends and family

members are likely to be the first to notice any changes in personality caused by a dependency, but embarrassment and denial often mask the problem.

Fortunately, there are treatments that help people counteract addiction’s powerful disruptive effects and regain control. Treatment approaches tailored to your addiction patterns and any co-occurring medical, psychiatric, and social problems can lead to sustained recovery and a life free of addiction. The first step on the road to recovery is to see a doctor, psychiatrist, or other qualified health-care professional who can diagnose your addiction and recommend the right treatment provider for you.

As with other chronic diseases, it’s not unusual to relapse and begin abusing drugs or resuming addictive behaviors again. Relapse, however, doesn’t signal failure: rather, it indicates that treatment should be adjusted or that a different approach is needed to help you recover. There are many groups and institutions whose programs have achieved remarkable success in helping people addictions to achieve long-term recovery.

Prevention

Preventing addiction starts in childhood. A strong relationship between parents and children is essential to preventing drug use both in adolescence and adulthood. Bonding can be strengthened through skills training on parental supportiveness, parent-child communication, and parental involvement.

Monitoring and supervising your child is critical. It’s important that you be a good role model by not abusing drugs or alcohol yourself, set fair and understandable rules, monitor your child’s activities, praise them for appro-

prate behavior, and provide moderate, consistent discipline to enforce defined rules so that they don't fall prey to the lure of addiction.

Early intervention generally has a far greater impact than later intervention by shifting a person's life path away from problematic behaviors and toward more positive ones. These include self-control, emotional awareness, communication, social problem-solving, and knowing where and how to access support.

Body imbalances underlying most addictions are often linked to an unhealthy diet. Poor nutritional habits that can promote addictions include excess salt and meat, too many refined or hydrogenated fats, or a surplus of processed foods with chemical additives. Sometimes the addictive substance is itself a food. Sugar is highly addictive and has negative effects on the hormonal and immune systems.

Overcoming addiction

As part of a comprehensive recovery program, dietary adjustments can play a major role in overcoming an addiction. A healthy diet supports the body's elimination of toxins and gives the body the resources it needs to function free of its dependency. Carrot, spinach, and beet juice can help the liver and pancreas heal from the damage done by drug or alcohol abuse.

A diet rich in alkaline foods, such as fruit and vegetables, and low in acid-forming foods, which include meats, milk products, refined flour products and sugar, will support the process of weaning the body from addiction. An alkaline diet allows the detoxification process to proceed gradually, so that cravings are reduced and withdrawal symptoms are

less severe. Extra fiber will also help pull toxins from the body. Raw vegetables, whole grains, and flax seeds provide the fiber necessary to bind toxins and maintain regularity. In addition, drink at least six to eight glasses of water a day to support detoxification.

Exercise stimulates production and secretion of the neurotransmitter serotonin. A deficiency of serotonin is associated with a vast array of mental-health problems—anging from depression to obsessive-compulsive disorders and addictions. Doing 30 minutes of moderate-intensity exercise a day can be as effective as medication in elevating serotonin levels without the unwelcome side effects. Activities that are most likely to stimulate the production of serotonin include running, brisk walking, aerobics, bicycling, swimming, and high-energy sports such as soccer or rugby.

Role of family & friends

Often, when an addicted person is reluctant to seek help, family members, friends, and associates will come together out of concern and love to confront them with their problem directly. They will strongly urge them to enter treatment and list the serious consequences of not doing so, such as the dissolution of their family or the loss of their job. This is called "intervention."

When carefully prepared with the guidance of a competent, trained specialist, the family, friends, and associates are usually able to convince the addicted person—in a firm but loving manner—that the only choice is to accept help and start the journey to recovery. People struggling with substance abuse can and do recover and interventions often prove the catalyst.

CONT...

If someone you care about has an addiction, you can make their life easier by:

- ✓ learning all you can about their condition
- ✓ getting them to acknowledge their condition and agree to seek help
- ✓ driving/accompanying them to treatment
- ✓ being there to support them emotionally while not enabling them to persist in their addiction or the unhealthy patterns of thinking and behaviors associated with it
- ✓ getting support for yourself and your other family members by talking to your loved one's treatment providers and/or joining a support group such as Al-Anon/Alateen specifically for the friends and families of addicts.

There are many other forms of support besides your treatment providers and family members. Contact Alcoholics Anonymous, Narcotics Anonymous, or similar agencies to find out about resources and support groups in your area.

Plan-it Health Online Tools (www.cutrust.com)

Find out how to protect yourself from developing an addiction. Read "Avoiding Addiction" under "Avoiding Disease" in the Self-Care & Prevention menu.

Learn all you can about addiction. Read the articles on "Addiction" in the Mental/Emotional Health menu and search for articles on "addiction" under "Search a Topic" in the Health Topic Search menu.

Depression, stress, and anxiety are very common among people dealing with an addiction. Read the articles and take the assessments under "Depression" and "Stress & Anxiety" in the Mental/Emotional Health menu.

Health Tracker

Under "Assess Mental Emotional Health": Emotional Health, Self-test: Are You Depressed?, Self-test: Stress Resilience, Self-test: Mood Disorder, Self-test: What is Your Level of Stress?, Self-test: Anger Management, Self-test: Anxiety, Self-test: Post-traumatic Stress

Under "Assess Relationship Health": Self-test: Assess Your Relationships, Self-test: Parenting Skills, Self-test: Communication Skills, Self-test: Violent Relationship

Under "Assess Lifestyle": General Habits/Lifestyle, Nutrition, Exercise, Environmental Health, Lifestyle Calculator

Under "Assess Addictions": Self-test: Am I Addicted to Drugs?, Self-test: Cybersex Addiction, Self-test: Sexual Addiction, Self-test: Alcohol Problem

Disease prevention checklist: General

- ✓ Be physically active / Are you physically active for at least 30 minutes most days of the week?
- ✓ Have healthy, mutually supportive relationships / Do you have people in your life whom you can confide in and rely on for support?
- ✓ Manage and reduce stress / Do you know what the sources of your stress are and do you have ways to reduce and/or manage them?
- ✓ Get sufficient quality sleep / Do you get seven to eight hours of sleep a night?
- ✓ Visit your health-care provider to screen for disease / Do you see your doctor at least once a year?

Other

- ✓ Be a good role model for your children / Have you avoided being drunk, doing drugs, or engaging in other unhealthy compulsive behaviors in front of your children?
- ✓ Set fair and understandable rules for your children / Do you always explain to your children what the household rules are and why you've put them in place?
- ✓ Monitor your children's activities/ Do you know what your children are doing most of the time and who they're with?
- ✓ Praise your children for appropriate behavior / Do you let your kids know when they've done something right?
- ✓ Provide moderate, consistent discipline to enforce defined rules / Do you demonstrate and explain the consequences of unhealthy behavior to your children so they don't repeat it?

Addiction at a Glance

How widespread an illness is it?

One in 10 Canadians over the age of 15 has struggled or is struggling with alcoholism and/or drug addiction. Addiction figures are substantially higher when all of its many forms—including gambling addiction, food addiction, sex addiction, and Internet addiction—are taken into account.

What are its main symptoms?

A person who is addicted persists in abusing a substance or doing an activity even when it has negative consequences for

their health, career, finances, and/or personal relationships, essentially disrupting their normal day-to-day life.

Can addiction be cured?

Yes and no. Effective treatment can address the unresolved emotional issues and lack of life skills that underlie most addictions, enabling many people to stop using or persisting in their addictive activity. But they still remain vulnerable to their past addiction, as well as to other forms of addiction. That's why many people still refer to themselves as "alcoholics" or "addicts in recovery."

Where do I go if I want more information?

Contact: B.C. Mental Health & Addiction Services
Riverview Hospital
2601 Lougheed Hwy.
Coquitlam, BC V3C 4J2
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Here to Help:

Web: www.heretohelp.bc.ca

B.C. Mental Health & Addiction Services, in association with the B.C. Partners for Mental Health & Addictions Information (Here to Help), offers free information about mental health and addiction. Call 604-669-7600 on the Lower Mainland or toll-free 1-800-661-2121. The line provides pre-recorded information 24/7 about services across B.C., as well as symptoms, causes, treatments, support groups, and publications. Press "0" at any time to speak to a staff member or volunteer.





Arthritis

...where bones connect

Arthritis is an inflammation of the tissue that lines a joint where two bones connect. The condition comes in more than a hundred different forms, with the two most common being osteoarthritis and rheumatoid arthritis.

Osteoarthritis tends to emerge later in life. Over time, with continued wearing down of the joint, people start to feel soreness and stiffness in their fingers, hands, elbows, hips, knees, shoulders, or other joints. The affected site can also become hard to move and may appear deformed.

Rheumatoid arthritis is the more destructive form of arthritis because the inflammation can cripple and deform joints starting from an early age. Initial symptoms are most common in women between the ages of 25 and 50, but the disease can affect anyone and to widely varying degrees. In some cases, attacks disappear, never to recur. In others, flare-ups last a long time and recur frequently, causing rapid destruction and crippling of the joints. Various internal organs, including the heart, lungs, and eyes can also be affected by the illness.

Gout is another type of arthritis caused by crystals that build up in the joints. It usually affects the big toe, but can occur in other joints as well. Arthritis may also be linked to other medical conditions, such as infections, and lupus, an autoimmune disease.

Besides being painful, arthritis may make it difficult to drive, work, and perform everyday tasks that require the use of affected joints. This can compromise one's mobility and personal independence.

Causes

The cause of osteoarthritis lies in a long process of joint deterioration, often precipitated by mineral deficiencies or imbalances. Mechanical wearing down of the cartilage lining the joints leaves abrasive tissue in place of the once-smooth cartilage. The aging process also depletes glucosamine from the cartilage, causing it to thin and leading to arthritis.

“Moderate exercise balanced with healthy doses of rest can increase joint function, strengthen muscles, and maintain mobility.”

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Emotional health plays a significant role in arthritis. Recent longitudinal studies by the University of Calgary showed that people who had significant levels of depression were 90% more likely to develop arthritis than those who did not.

Osteoarthritis often affects a joint that has been previously injured at work, while playing sports, or in another type of accident. Obesity can also act as a trigger for arthritis by increasing stress on weight-bearing joints.

Rheumatoid arthritis is more complex in its origins and its true cause still remains unknown. Health experts classify it as an autoimmune disorder, an illness in which the body attacks its own tissues as a result of a faulty immune-system reaction. There may be a genetic trigger to rheumatoid arthritis, since the disease tends to run in families.

A headline-grabbing study reported at the American College of Rheumatology's annual meeting in 2001 showed that decaffeinated coffee could be another possible catalyst in the onset of rheumatoid arthritis. It found that women who drank four or more cups of decaffeinated coffee a day had a significantly increased risk of developing the disease. Researchers suspect that the chemical processes used to extract the caffeine from the coffee beans may be to blame.

Symptoms

Frequent joint cracking and stiffness, especially early in the morning, indicates the onset of osteoarthritis. As the disease progresses, the affected joint becomes painful. Secondary symptoms may include fatigue, impaired activity, joint deformity, tenderness, and swelling.

Rheumatoid arthritis is characterized by early-morning stiffness along with pain and inflammation. The fingers and toes are usually the first to be affected, although it's not uncommon for the pain to wander from joint to joint. Arthritic flare-ups can also cause fatigue, low-grade fevers, poor appetite, and weight loss. Over time, nodules may develop on the joints.

Diagnosis & treatment

If you experience symptoms of arthritis, go see a doctor. Describe your symptoms to them and where you're feeling the pain, soreness, or stiffness. They'll ask you questions and examine you. They may also take X-rays and do blood tests to aid in the diagnosis.

If the doctor determines that you have arthritis, they'll discuss your prognosis with you and the best way to treat it. They may provide you with a prescription for medication to help ease the pain, stiffness, and inflammation. Make sure you inform the doctor of any other medication you may be taking, including over-the-counter drugs and natural-health supplements. Ask them any questions you need answering to help you understand how to take the prescribed medication properly. If you have an adverse reaction (e.g. breaking out in rash after applying medicinal cream), call the doctor right away.

Prevention

A healthy, balanced diet may help to lower your risk of arthritis. Calcium, magnesium, zinc, copper, manganese, silicon, boron, strontium, and numerous other lesser-known minerals are all involved in bone synthesis, breakdown and repair. The average North American diet

has been shown to be deficient in these and other vital nutrients, contributing to the increasing incidence of osteoarthritis and other degenerative diseases. To ensure an adequate intake of arthritis-fighting nutrients, use the Calorie/Nutrition Counter (see “Plan-it Health Online Tools”) or take an over-the-counter vitamin and mineral supplement.

Maintaining a positive mood will prevent the development of arthritis. If you are feeling down, explore the reasons why. If the feeling persists for more than two weeks, it may be helpful for you to seek counseling. A psychologist can diagnose if you have depression, and can work with you to help you overcome it.

Living with arthritis

Although arthritis is an irreversible condition, there are many things you can do to stop the condition from worsening and from interfering with your everyday life, including adopting a healthy diet and a sensible exercise regimen.

Limit protein to plant sources, such as nuts, seeds, legumes and soybeans. Excessive animal proteins may cause painful uric acid deposits in the joints. Incompletely digested proteins can also act as allergens that trigger arthritic pain.

Eat raw fruit and vegetables. Cherries, raspberries, pears, and apples are particularly beneficial. Dark green, leafy vegetables provide the antioxidants vitamins E and C, which work together to maintain and build cartilage and limit free-radical reactions that can contribute to inflammation. Likewise, the silica found in alfalfa sprouts, lettuce, and cabbage has been shown to help alleviate arthritis. Unrefined, cold-pressed vegetable oils, such as flaxseed, pumpkin seed and

walnut oil, reduce inflammation, lubricate the joints, and help generate and deposit bone material.

If you have rheumatoid arthritis, avoid foods known to frequently spark attacks, including pasteurized milk and cheese, refined wheat products, food additives and chocolate. Some people with arthritis find their joints are irritated by compounds in vegetables of the nightshade family: eggplant, tomatoes, potatoes, and peppers.

Try to maintain a healthy weight, since excess weight can make your knees and hips hurt. Ask your doctor to recommend safe exercises and whether or not physiotherapy might help. Both rheumatoid arthritis and osteoarthritis have periods of inflammation that alternate with periods of apparent improvement. When pain, swelling, and stiffness occur, the joint should be rested for it to heal more easily and completely. Only resume exercising or physiotherapy once the joint has healed.

Moderate exercise balanced with healthy doses of rest can increase joint function, strengthen muscles, and maintain mobility. Walking is a great way to stay in shape if you have arthritis. Swimming is another excellent form of exercise because the water lends support to the joints. Simple stretching exercises, movements with light weights, working with elastic bands, and yoga also help to boost fitness while causing a minimum of pain.

If you have rheumatoid arthritis, try to capitalize on warm, temperate days for exercising outdoors: studies have found that people with rheumatoid arthritis often experience increased pain on cooler days, as well as on humid ones.

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If you feel pain after taking prescribed medication, try taking a warm shower, doing some gentle stretching exercises, applying an ice pack to the sore area, or resting the sore joint. Avoid taking non-steroidal anti-inflammatory drugs, which have been shown to worsen arthritis.

Role of family & friends

The main sources of support for people with arthritis are family members and friends. If someone you care about has arthritis, you can make their life easier by:

- ✓ learning all you can about their condition
- ✓ driving/accompanying them to places if their arthritis limits their mobility
- ✓ picking up their medication from the pharmacy if they're unable to do so themselves and checking with them to make sure they're taking it if they have trouble remembering
- ✓ buddying up with them to encourage them to engage in moderate exercise
- ✓ being there to emotionally support them if their condition gets them down
- ✓ asking them if there are any other ways you can help.

There are many other forms of support besides your doctor and your family members. Contact the Arthritis Society to find local support groups and resources in your area.

Plan-it Health Online Tools (www.cutrust.com)

Learn all you can about arthritis.

Read the entry on "Arthritis" under the "Alphabetical Topic Search" and search for articles on "arthritis" under "Search a Topic" in the Health Topic Search menu.

Depression, stress, and anxiety are common among people with arthritis. Read the articles and take the assessments under "Depression" and "Stress & Anxiety" in the Mental/Emotional Health menu.

A nutritious, well-balanced diet is one of the best defences against arthritis. Prepare healthy meals for yourself using the "Healthy Recipes," "Calorie/Nutrition Counter," and "Meal Planner" in the Eating Well menu.

Health Tracker

Under "Assess Lifestyle": General Habits/Lifestyle, Nutrition, Exercise, Environmental Health, Lifestyle Calculator

Under "Know Your Numbers/Biomarkers": Pedometer (Steps), TSH, BMI, Waist-to-Hip Ratio, Waist Circumference

Disease prevention checklist:

General

- ✓ Eat right / Do you generally eat five servings of fruit and vegetables a day?
- ✓ Be physically active / Are you physically active for at least 30 minutes most days of the week?
- ✓ Manage and reduce stress / Do you know what the sources of your stress are and do you have ways to reduce and/or manage them?

- ✓ Chart your moods / Do you feel depressed and down for more than two weeks at a time?
- ✓ Visit your health-care provider to screen for disease / Do you see your doctor at least once a year?

Other

- ✓ Maintain a healthy weight / Are you aware of your BMI and eating and exercising properly so it's at an appropriate level?
- ✓ Rest swollen joints / Do you avoid undue pressure on or exertion of arthritis-affected sites?

Arthritis at a Glance

How widespread an illness is it?

Arthritis is one of the most common chronic diseases. A Health Canada study released in 2003 found that one in six Canadians has arthritis. Contrary to popular belief, the majority of people with this disease are under the age of 65.

What are its main symptoms?

The primary symptoms of arthritis are stiffness, soreness, and pain in the joints.

Can arthritis be cured?

No. However, through effective treatment and management, the symptoms of arthritis can be significantly controlled to help minimize the disease's impact on day-to-day life.

Where do I go if I want more information?

Contact: The Arthritis Society (British Columbia and Yukon Division Office)
 #200 - 1645 West 7th Avenue
 Vancouver, BC V6J 1S4
 Web: www.arthritis.ca
 Phone: 604-714-5550 or 1-866-414-7766
 Fax: 604-714-5555

The Arthritis Society also operates the Arthritis Answer Line, a provincial service for people with arthritis and their families. Their motto is: "For every question there is an answer. We're here as your source of help and hope." Call 604-875-5051 on the Lower Mainland or toll-free 1-800-321-1433.



Reference Sources:

Public Health Agency of Canada,
 The National Institutes of Health (U.S.)
 The Centers for Disease Control (U.S.).

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