



# Healthy Selves, Healthy Communities

A Community-based Intercultural Wellness Program

September 9, 2011-December 2, 2011

Sponsoring Partners:

**Little Mountain Neighbourhood House**  
**(Building Welcoming and Inclusive Neighbourhoods Project)**

**Vancouver Coastal Health**  
**BCIT School of Nursing**



**Little Mountain  
Neighbourhood House**



**Vancouver  
Coastal Health**

*Promoting wellness. Ensuring care.*



**BRITISH COLUMBIA  
INSTITUTE OF TECHNOLOGY**

“The greatest wealth is health.” ~Virgil

## **About the Healthy Selves, Healthy Communities program**

Little Mountain Neighbourhood House (LMNH) is a hub for health literacy and community wellness. The promotion of healthier lives ultimately leads to healthier communities. We are proud to announce the success of our second year of the *Healthy Selves, Healthy Communities* program, giving thanks and acknowledgment to the program funders: Vancouver Coastal Health and Welcome BC's *Building Welcoming and Inclusive Neighbourhoods* Project.

*Healthy Selves, Healthy Communities* is a twelve week health and wellness program organized in partnership between LMNH and British Columbia Institute of Technology (BCIT) School of Nursing. The program is designed to increase community capacity, health literacy, knowledge of intercultural approaches to health and wellness, and promotion of healthier lifestyles to reduce risks of chronic illness. BCIT Practicum students Trang Pham and Laura South worked closely with LMNH's Building Welcoming and Inclusive Communities Coordinator, Jennifer Wesman, to coordinate and facilitate weekly sessions. Each session was designed for participants to share personal knowledge and understanding of health issues, ways to prevent stress and illness, and suggestions for healthy living and eating.

The outcome of this project was an intercultural learning experience and document designed to share valuable health information and community resources. The information found in this document makes up the 12-week curriculum, activities, and discussions that were fundamental for increasing health and wellness in the participants—and in our community. We are happy to share knowledge with all our neighbours; after all, “the greatest wealth is health” (Virgil).

If you would like more information, or to register for future *Healthy Selves, Healthy Communities* programs, please contact Jennifer at Little Mountain Neighbourhood House at 604-879-7104 (ext 315) or email: [Jennifer\\_wesman@lmnhs.bc.ca](mailto:Jennifer_wesman@lmnhs.bc.ca)

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\* Denotes results of Healthy Selves, Healthy Communities participant discussion and brainstorming



## Oral Health



### 5 Steps to Good Oral Health

#### 1. See your dentist regularly

- Regular visits are important to prevent problems or to stop small problems before they become big problems.

#### 2. Keep your mouth clean

- Brush your teeth and tongue at least twice a day to remove plaque and bacteria that cause cavities and gum disease.
- Floss every day. The space between your teeth make up 33% of your tooth surface.

#### 3. Eat, drink, but be wary

- Healthy food is good for your body AND your teeth.
- Avoid sugar as much as possible. It is a main cause of dental problems.
- Avoid food and drinks that have a lot acid which

#### 4. Check your mouth regularly

- Warning signs of **gum disease**:
  - red, shiny, puffy, sore or sensitive gums
  - bleeding when you brush or floss
  - bad breath that won't go away
- Warning signs of **oral cancer**:
  - Bleeding that cannot be explained
  - Open sores lasting over 7 days
  - White or red patches
  - Numbness or tingling
  - Small lumps or thickening inside your mouth
- Warning signs of **tooth decay**:
  - Sensitivity to hot, cold, sweetness, or pressure



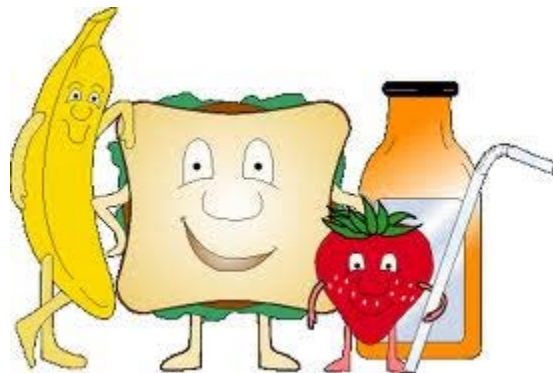
#### 5. Avoid all tobacco products

- Smoking can cause oral cancer.



## Nutrition for a Healthy Mouth

- A balanced and nutritious diet will strengthen your teeth and protect them from decay and gum disease.
- Suggestions on how to reduce sugar:
  - Choose sugar-free snacks
  - Less sugar to coffee or tea (use sugar substitutes)
  - Avoid sugar-sweetened soft drinks
  - Read labels when shopping
    - If sugar is listed first, there is more sugar than anything else
- Eat sweets with meals, not as a snack. There is more saliva when you eat meals and this helps to wash away and dilute the sugar
- If you can't brush, try to rinse your mouth with water or eat fibrous fruit (e.g.:



### Snacks that won't hurt your teeth!

- ✓ Plain milk and buttermilk
- ✓ Fruit and raw vegetables
- ✓ Plain yogurt, cheese, and cottage cheese
- ✓ Hard boiled eggs
- ✓ Nuts, sunflower or pumpkin seeds
- ✓ Melba toast
- ✓ Salads

## Healthy Mouth Nutrition for Children

- Sugars from the children's food and drink mix with bacteria inside the mouth to form a mild acid that will attack the outer layer of the teeth. This layer is called **enamel**. **Cavities** are formed when acid makes holes in the enamel.
- All sugars have the same effect on teeth whether natural or out of the bag!
- Avoid giving your child a bottle of milk or juice before bedtime. The milk has natural sugars, which stay in the mouth for a long time and can cause cavities.
- Teething biscuits can break down to make sugar that stays in the mouth for a long time.
- Limit how many times each day your child eats or drinks sugar. Water is the best drink to have between meals.
- Keep snacks such as carrot sticks or cheese cubes on the lower shelf of the fridge where kids can reach.



**Your job is to clean your child's teeth, not to stop your child from having milk, juice, bread, or noodles. Your child needs these foods to stay healthy.**

– The Canadian Dental Association

## How to Spot Trouble

Make an appointment to visit your dentist if you notice these warning signs:

Warning Sign	The Problem?
Bad breath that doesn't go away	The cause might be gum disease, food, drinking, smoking, medication or a health condition. If you cannot get rid of bad breath with daily brushing and flossing, see your dentist.
Your gums bleed when you brush or floss	If you just started to floss, a little bleeding is normal. But if you bleed almost every time you brush or floss your teeth, see your dentist.
Dry Mouth	For women, menopause may be the cause. It is also a side effect of many common medicines. It can make dental problems worse.
A tooth that is a little bit loose	A loose tooth could be caused by gum disease or by a blow to the mouth.
A sore mouth	A sore mouth might be caused by false teeth that don't fit well or from leaving false teeth in overnight. "Burning mouth syndrome" is a problem that affects some older women. Not eating the right kind of food may also be the cause.
Bleeding that you can't explain Mouth sores that don't heal in 7 to 10 days White or red patches in your mouth Feeling numb or sore inside your mouth	These symptoms may be signs of oral cancer. See your dentist right away.
Teeth that are sensitive to: <ul style="list-style-type: none"> <li>• Hot</li> <li>• Cold</li> <li>• Sweetness</li> <li>• Pressure</li> </ul>	Teeth can become sensitive suddenly, or over time. In most cases, this kind of pain means something is wrong.

### Reduced Fee Services for Children

NAME & CONTACT INFO	PHONE	RESTRICTIONS	SERVICES
<b>Mid Main Community Health Centre</b> 3998 Main Street	604-873-3602	Appointment needed	Complete Dentistry
<b>Reach Clinic</b> 1145 Commercial	604-254-1331	Appointment needed	Complete Dentistry
<b>UBC Dental Clinic – Faculty of Dentistry</b> 2151 Wesbrook Mall	604-822-2112	Prescreening needed. Must be 5 years or older	Basic Dentistry
<b>VCC Dental Assisting Program</b> 250 West Pender Street	604-443-8499	For ages 4 – 21. Prescreening done Spring	Prevention
<b>Vancouver Community Dental Health Program – North Community Health Office Dental Clinic</b> 200-1651 Commercial Drive	604-215-3935	For children residing in Vancouver	Basic Dentistry
<b>Strathcona Community Dental Clinic</b> 601 Keefer Street	604-713-4485	Servicing the children of the Vancouver School District	Basic Dentistry

#### Healthy Kids Program:

BC Healthy Kids Program helps middle and low income families with the basic cost of dental care and prescription eyewear for their children. Anyone receiving any level of MSP premium assistance may be eligible for dental coverage under Healthy Kids.

Website: <http://www.eia.gov.bc.ca/publicat/bcea/HealthyKids.htm>

Contact: 604-683-7151 or toll-free at 1-800-663-7100

## Resources

<b>NAME &amp; CONTACT INFO</b>	<b>PHONE</b>	<b>RESTRICTIONS</b>	<b>SERVICES</b>
<b>Mid Main Community Health Centre</b> 3998 Main Street	604-873-3602	Appointment required	Basic Dentistry
<b>Reach Clinic</b> 1145 Commercial	604-254-1331	Appointment required	Basic Dentistry
<b>Strathcona Community Dental Clinic</b> 601 Keefer Street	604-713-4485	Adults over 65 living in downtown east side; Children of the Vancouver School District	Basic Dentistry
<b>VGH Dental Clinic – Diamond Health Care Centre</b> 2775 Laurel Street	604-875-4006	Must be 17 years or older	Basic Dentistry
<b>UBC Dental Emergency Clinic</b> 2151 Westbrook Mall	604-822-2112	Appointments must be made 2 working days in advance	Basic emergency dentistry Sept. – June
<b>VCC Dental Hygiene Program</b> 250 West Pender Street	604-443-8499	Pre-screening done in Sept. and Jan	Prevention (Sept – June)
<b>Eastside Dental Clinic</b> 449 East Hastings	604-254-9900	No appointment necessary. First come first served. Primarily for residents of the downtown eastside	Basic Dentistry (pain relief) Restricted days & hours

# STRESS

## What is stress?

- Difficult life events that overwhelm a person's ability to cope
- "In general, a person experiences stress when a demand *exceeds* a person's coping abilities." – something that is stressful for one person might not be stressful for another
- The stress response affects both the body and the mind
- Stressors can be physical (body) or psychological (mind)

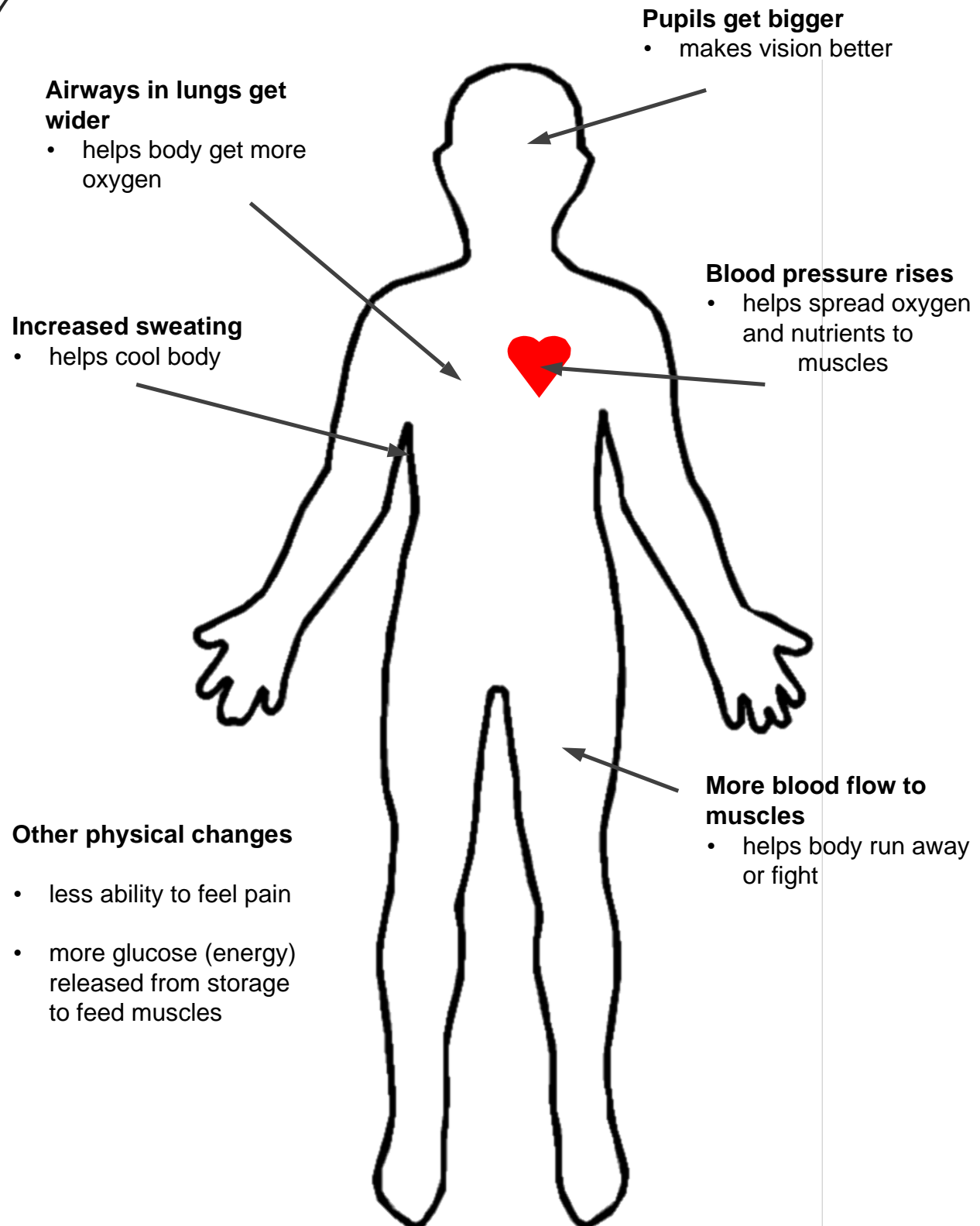
### Physical Stressors

- pain
- extreme cold or heat
- illness or disease
- malnutrition
- injury
- surgery
- lack of sleep
- noise

### Psychological Stressors

- fear
- anger
- isolation
- lack of control
- powerlessness
- too many responsibilities
- not being able to carry out responsibilities

## Acute Stress



**Acute stress is short term and meant to help you fight or run away from a stressor**

## Chronic Stress

### Changes to thoughts and emotions

- depression
- fatigue & insomnia
- difficult to learn new information
- memory changes

### Changes in fat stores

- more fat stored in belly, torso, face
- fat builds up inside blood vessels

### Calcium leaves body

- weakens bones (osteoporosis)

### Other physical changes

- immune system weakens – get sick easier
- more glucose (energy) released from storage – can lead to Type 2 diabetes

### Blood pressure rises

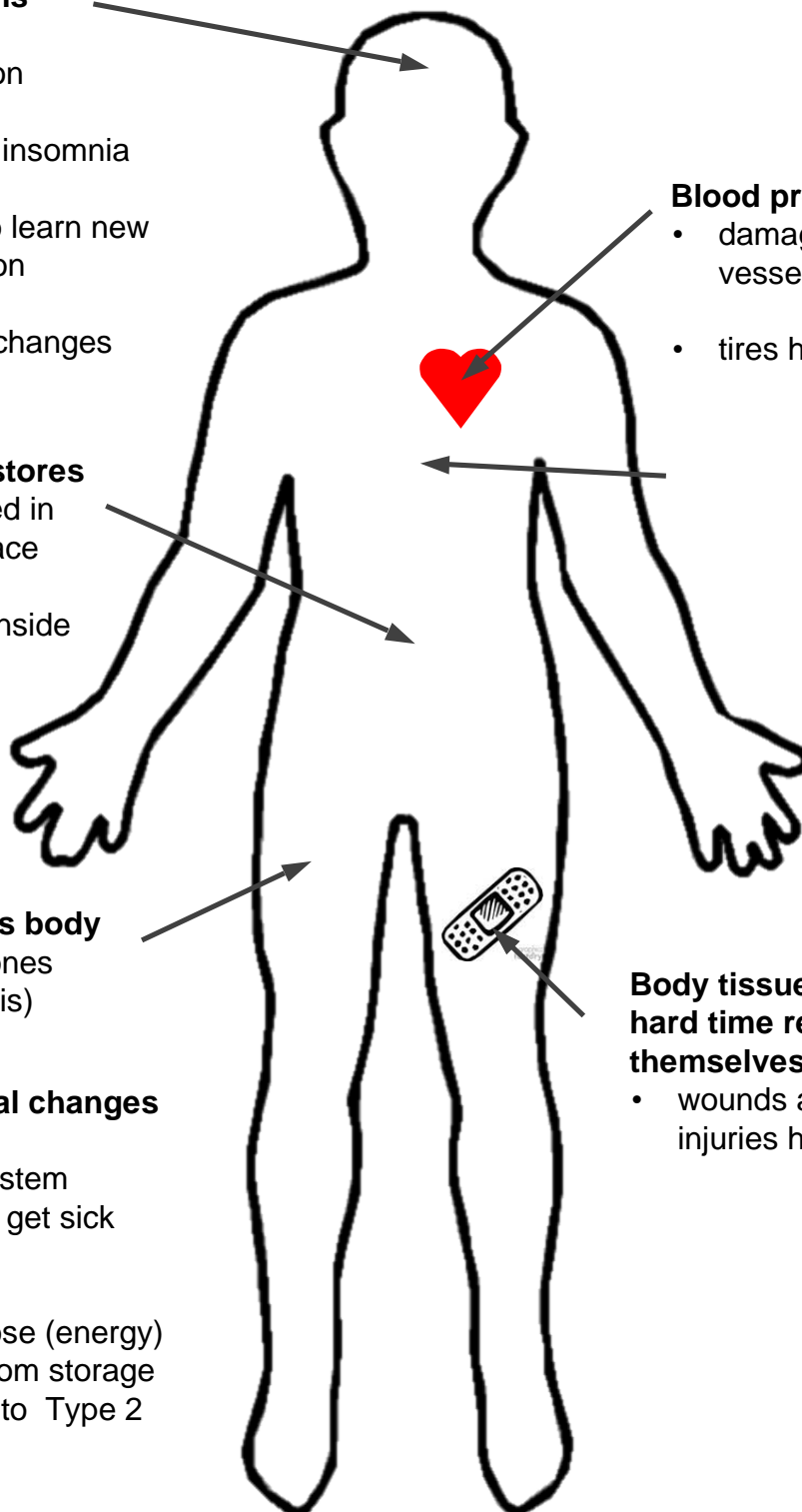
- damages blood vessels
- tires heart

### Increased stomach acid

- causes

### Body tissues have a hard time repairing themselves

- wounds and other injuries heal slower



**Chronic stress happens when stressors do not stop. Chronic stress can hurt the body and lead to illness or disease.**

### **Stress and the Health Care System**

Many people feel stress when they are in the hospital or need to see the doctor

- they are sick or hurt
- they are afraid or confused
- injections and blood tests (needles)
- memories of past treatments
- embarrassed about doctor or nurse seeing private parts of body
- doctors and nurses use medical words or might not speak the same language as the patient

### **Chronic stress is linked to many illnesses and diseases**

We will learn more about some of these illnesses during the rest of the program

Managing stress can prevent or slow the progression of some of these illnesses

- Heart disease and stroke
- Type 2 diabetes
- Depression, insomnia, fatigue
- Cancer (some types)
- Asthma, allergies, hay fever
- Stomach ulcers, colitis, gastro-esophageal reflux disease (GERD)
- Arthritis

### **Post-Traumatic Stress Disorder (PTSD)**

A type of stress response caused by the memory of traumatic events such as war, abuse, bad accidents (eg: plane crash), torture, natural disasters

People with PTSD may experience the following symptoms

- flashback memories
- problems sleeping, nightmares
- feeling worried, guilty, sad, afraid
- angry outbursts
- feeling alone

PTSD can be treated by seeing a counselor and taking special medications prescribed by a doctor

## What Makes You Feel Stressed?

- Children and/or spouse
- Money, debt
- Aging
- Finding a good place to live that is affordable
- Illness or injury
- Medical tests
- Waiting for the results of medical tests
- Losing your job
- Trying to find a job
- Bad news about both our local and global community
- Pain
- Traffic
- Being late
- Homework



“If your teeth are clenched and your fists are clenched, your lifespan is probably clenched”. ~Terri Guillemets

## How Does Stress Make You Feel?

### Body

- Sleeplessness
- Tense
- Body shake
- Lack of energy
- Low immune system
- Pain
- Insomnia
- Tired
- Hot
- Stomach ache
- Nauseous
- Headache
- No sex/loss of libido
- Acne/pimples
- Stiff neck
- Hives
- Eczema
- Loss of hair (alopecia)
- Greying of hair
- Shoulder pain
- Sweating
- Overeating or not eating
- Knee pain
- Ulcers, gastritis, colitis
- Bladder infections
- Get sick easily
- Fast heart beat
- Wrinkles
- Bags under eyes

### Mind and Spirit

- Fighting mood
- Memory loss
- Anxiety
- Hard to focus on tasks
- Affects thinking
- Affects decision making
- Irritation
- Uneasiness
- Not comfortable
- Worry
- Lack of interest in surroundings
- Hot temper
- Sad
- Angry
- Frustrated
- Nervous
- No motivation
- Crying
- Suicide
- Lack of control
- Difference of opinion
- Drink, smoke, do drugs

## PREVENTING AND MANAGING STRESS

**Remember, stress is when difficult life events overwhelm a person's ability to cope.**

Learning how to prevent and manage stress will give you a stronger ability to cope with stress.



### Ways to Prevent and Manage Stress in the Health Care System

- Write down your problem and questions. Bring them with you when you see the doctor or nurse. Your list will help you remember everything you want to talk about.
- Ask questions if you do not understand what the doctor or nurse is saying. Doctors and nurses want you to know what is happening.
- If memories of past treatments worry you, try thinking of soothing scenes. You can also imagine yourself being healthy after treatment.
- Do not be embarrassed about asking questions or showing parts of your body to doctors or nurses. They will be professional and try to make you feel comfortable.

### In the hospital

- If you are in pain, use the pain medication offered to you. It helps prevent physical stress on your body so you can heal faster. You will not become addicted to pain medication if you take it to treat pain.
- Deep breathe several times an hour when you are awake. Deep breathing can reduce stress. It also helps your lungs stay clear.
- Spiritual care for all religions is offered. Ask your nurse if you want to speak to someone.
- Friends and family can visit you in the hospital. You can also ask them to leave if you want to sleep or have quiet time.

## Stress Management Skills Test

This test can help you learn skills you already use to fight stress. It can also give you new ideas to try.

### Manage Causes of Stress

- I have enough shelf, file, and drawer space to hold my belongings
- I usually do important tasks before unimportant tasks
- I try to schedule appointments so that I can get to them on time
- It is easy for me to keep my work area clear

### Using Relaxation Techniques

- I make time to relax every day
- I sometimes think of quiet scenes to relax
- I sometimes breathe deeply to help me relax
- I sometimes tense and relax my muscles as a way of fighting stress

### Managing Thoughts

- I often think about my thoughts and try to correct irrational beliefs
- I know that my thoughts are sometimes irrational or unclear
- I keep myself calm by choosing what I pay attention to around me
- I often “reframe” events to reduce the stress I’m feeling

### Preventing Stress from Starting

- I try to fight stress before it starts
- I keep an up-to-date list of things I need to do
- I spend a few minutes each morning planning my day
- I know how I would like my life to be over the next few years

## More Coping Techniques

### Progressive relaxation

- This skill is good to practice when you are in bed before you go to sleep
- Start by tensing the muscles in your feet then relax them. Feel the tension float away.
- Then tense and relax your lower leg muscles. Continue this pattern all up your body



### Meditation or prayer

- Helps clear your mind
- Gives hope



### Walking in nature

- Walking through a quiet park with trees can reduce stress
- Breathe fresh air. Listen to the sounds of wind in the leaves and birds chirping.
- Try Queen Elizabeth Park, Stanley Park, Pacific Spirit Park

### Laughter

- “a laugh a day keeps the doctor away!”
- watch a funny movie or TV show
- spend time being silly with your kids
- try getting a group of friends or family members together. Lay down on the floor with your heads on someones’s belly. It feels so funny you cannot stop laughing!



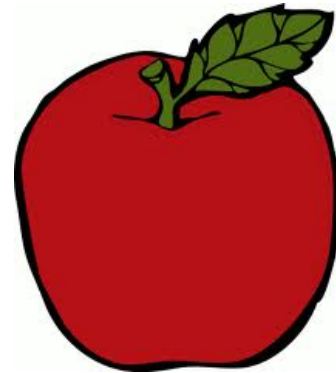


### Talk to someone

- a friend or family member
- a counselor
- your health care provider
- a telephone crisis line if you are thinking about hurting yourself or someone else

### Eat healthy food

- Healthy food can help you avoid becoming sick
- When we are stressed, we like to eat sugary food. But sugary food can make us feel more tired and have “sugar crashes”



YOGA

### Exercise

- Exercise that makes you sweat can release endorphins. Endorphins are hormones that make you feel good naturally!
- Calm exercise like gentle walking, yoga, tai chi, and qigong help calm your mind and relax your body

### Massage, Acupuncture, Acupressure

- Massage can be done by yourself, someone you know, or a professional. It can release tense muscles and make you feel relaxed
- Acupuncture and acupressure makes many people feel relaxed and release stress.



**If you try these techniques and still feel stressed, talk to your doctor. Sometimes people need some medicine to help them control stress while they learn how to prevent or control or stop stressors.**

## Resources

### **“Stress Reduction with Mindfulness”**

Mount Pleasant Community Centre 604-257-3080

[http://vancouver.ca/parks/cc/mtpleasant/website/adults\\_educational.cfm](http://vancouver.ca/parks/cc/mtpleasant/website/adults_educational.cfm)

October 14 – November 18 7pm-9pm Friday evenings  
\$32.50 for 5 sessions

Learn simple stress reduction techniques that are clinically shown effective in reducing stress. Also learn how to deal with the ordinary and extraordinary challenges of life with balance and peace of mind.

### **Leisure Access Card** at Vancouver Parks & Recreation

Free or discounted access to swimming pools, skating rinks, gyms, and classes at Vancouver recreation and community centres.

For more information, visit any Vancouver recreation or community centre or their website:

<http://vancouver.ca/parks/rec/lac/index.htm>

### **Meditation Classes** at The Shambhala Meditation Centre

Free open house every Wednesday at 7pm. Donations for tea and cookies appreciated.  
No registration needed.  
Wear comfortable clothes.

3275 Heather St. 604-874-8420

<http://www.vancouver.shambhala.org/open-house.php>

### **Acupuncture** at Poke Community Acupuncture

Discounted acupuncture in the Mount Pleasant Neighbourhood.  
By appointment only.

225 E. Broadway 604-568-7322

[www.pokecommunityacupuncture.ca](http://www.pokecommunityacupuncture.ca)

## How Do You Cope With Stress?

- Running, walking, exercise
- Talk with friends, family, or a professional
- Listen to music
- Play the piano
- Go out away from the stress
- Stretch
- Meditation
- Deep breathing
- Massage
- Look at something amazing!
- Play with kids
- Have a hot bath
- Read
- Laugh, smile



"I'm learning how to relax, doctor – but I want to relax better and faster! I want to be on the cutting edge of relaxation!"

## INSOMNIA

Insomnia happens when a person often has trouble falling asleep or staying asleep.

This happens even when the person has enough time for a good night's sleep.

People usually do not fall asleep during the day but they usually have the following symptoms

- tired, fatigued
- worry about falling asleep or getting enough sleep
- have poor concentration (get distracted easily)
- have difficulty falling asleep
- slow reaction times

### How does my body know when it is time to sleep?

Sleep is controlled by the body clock

The body clock is controlled by:

- Melatonin – a hormone that makes us sleepy when it becomes dark
- Circadian ( sir-kay-dee-an ) rhythm -- wakes us up when it becomes light

### Are there different types of insomnia?

Yes. There are three different types of insomnia.

1. Transient insomnia – This type of insomnia usually only lasts for 1-6 days and is caused by a short stressful situation. Transient insomnia usually stops once the stressful situation is over.

- Example: Job interview
- Example: Exam

2. Short-term insomnia – This type of insomnia usually lasts up to 6 months. It is caused by a stressful situation that does not go away quickly.

- Example: Death or illness in the family
- Example: Loud noise at night, every night

3. Chronic insomnia – This type of insomnia lasts longer than 6 months. It is usually linked to medical conditions or mental illness.

- Example: Chronic pain
- Example: Depression
- Example: Breathing problems (COPD, sleep apnea)

**Many medical conditions are linked to insomnia.** Some, like chronic pain or COPD make it hard to fall asleep. Bladder problems or an enlarged prostate make people wake up many times during the night to use the bathroom. Other people have neurological problems that make it hard for them to stop moving, preventing them from falling asleep.

**Insomnia can also be part of a mental illness.** People with depression often have trouble falling asleep. People with anxiety might keep worrying about their day. Bipolar disorder can make people not feel tired. People with post-traumatic stress disorder often have nightmares that wake them up during the night.



Once people develop insomnia, it can sometimes be very difficult to make it stop, even if the stress goes away or the medical condition is treated.

This is because

- some people worry so much about getting enough sleep that they cannot stop thinking about sleep when they go to bed
- people try to “catch up” on sleep by having day time naps, sleeping late, or trying to go to bed when they are not tired
- some people use drugs or alcohol to fall asleep. Drugs and alcohol might make you feel sleepy but they stop you from having quality sleep that makes you feel rested

## Treatments Used to Stop Insomnia

You and your doctor may use some or all of these treatments. If insomnia is caused by a medical condition such as chronic pain, that medical condition should also be treated.

### Cognitive Behavioural Therapy (CBT)

- This is the “gold standard” treatment for insomnia. CBT is the best choice to help people sleep better.
- helps people change their negative thoughts about sleep
- people learn relaxation techniques
- sleep hygiene (see next page for more on sleep hygiene)



### Medication

- should only be used to treat transient or short-term insomnia
- your doctor may prescribe a **sedative-hypnotic** that will help you get to sleep in the short term
- melatonin is not proven to help people sleep
- avoid taking over-the-counter sleep medication because it can make your insomnia worse, especially when you stop taking it

### Herbs

- herbs such as valerian and St. John’s Wort are not proven to treat insomnia
- if you choose to take herbs, please let your doctor or nurse know. Some herbs and medications are dangerous if taken together



### Exercise

- Exercise can help reduce stress, making it easier for you to sleep
- Avoid vigorous exercise within 6 hours of going to bed because it can make you more alert
- If you want to exercise in the late evening, try a gentle exercise like walking, hatha yoga, or tai chi

### Accupressure



- The HT7 accupressure point (see picture to left) is proven to help treat insomnia for many people
- This point is also called the “spirit gate”
- The point is in the wrist, below the little finger. Feel for a notch between the bones.
- Apply gentle but firm pressure

### Sleep Hygiene

Sleep hygiene is about what you do before you go to bed and when you are trying to sleep. Good sleep hygiene is an important part of CBT and can help you get a better night's sleep.

- Use your bed only for sleeping and sex. Read or watch television in another room.
- Go to bed only when you are sleepy
- Avoid taking naps during the day because they take away time your body will sleep at night
- If you are still awake 15-20 minutes after going to bed, get out of the bed and sit in a chair or do a quiet relaxing activity (such as progressive relaxation) until you are sleepy. Then go back to bed to sleep. You may need to repeat this several times.
- Wake up at the same time each morning
- Stop drinking coffee, black or green tea, or soda after 2pm. Caffeine is a stimulant and makes it difficult to fall asleep and stay asleep.
- Avoid alcohol or cigarettes in the evening because they stop you from sleeping well.
- Keep your bedroom quiet and dark.
- A cooler room is easier to sleep in than a warmer one
- Create a calming routine to use before going to bed. Things to try include:
  - Taking a warm bath or shower
  - Meditate, pray, or just sit quietly

**If you try to reduce stress and practice sleep hygiene and you still suffer from insomnia, talk to your doctor. Your doctor can refer you to the Vancouver Coastal Health Sleep Disorder Clinic. The clinic offers both medical and psychological help for insomnia. The clinic is covered by MSP.**

## What Makes it Hard for You to Sleep?

- Stress
- TV
- Thinking about too many things
- Worries
- Expectations of self
- Pain
- Night shift, changing shifts
- Job
- Kids (especially if sick)
- Babies (feeding at night, sick)
- Getting up many times to use the bathroom
- Menopause
- Bedroom too warm



## Heart Disease

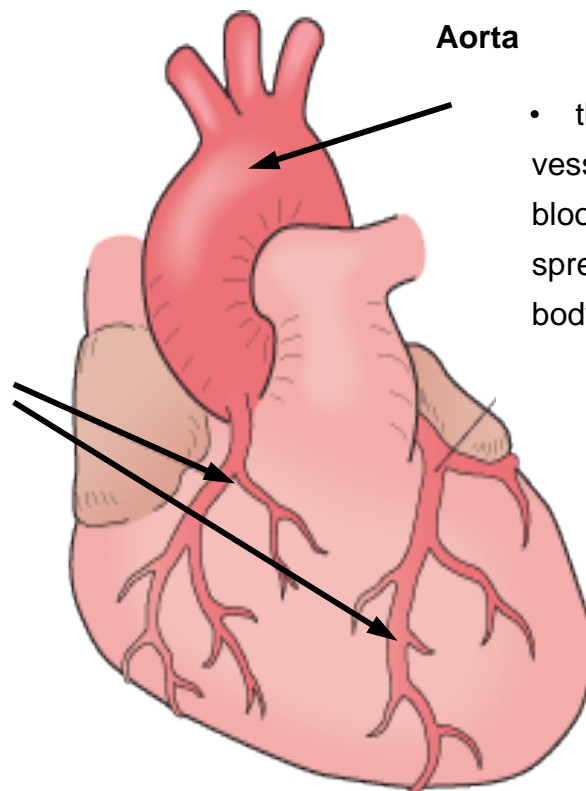
### The Heart's Job

Your heart is a muscle that pumps blood to all parts of your body every second of the day – at rest, at work, and at play!

- It supplies nutrients and oxygen to all your body parts including itself
- The heart feeds itself with blood by the coronary arteries, which surround the heart

#### Coronary arteries

- these blood vessels take blood from the aorta to feed the muscle of the heart
- see how small the vessels are?



- the aorta is the blood vessel that takes fresh blood from your heart to spread to the rest of your body

**Blood vessels** are the tubes that move blood around your body

**Arteries** take fresh blood from the heart to all the parts of your body

**Veins** take used blood from your body back to the heart to be filled with oxygen and nutrients again

## Atherosclerosis

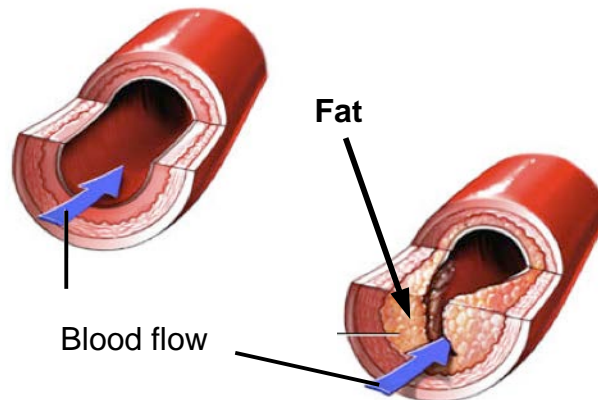
“A – ther – o – skle – ro - sis”

### What is Atherosclerosis?

- Fat on the inside of your blood vessels
- Your blood contains a lot of nutrients that are good for your body but it also contains fat
- Over time, fat build up on the inside of your blood vessels
- This will cause your blood vessels to narrow and it becomes more difficult for blood to travel to all the different parts of your body
- This will also reduce the amount of nutrients and oxygen to your body

### Normal Artery

- the artery is wide with lots of room for blood to flow



### Artery with atherosclerosis

- see how fat has built up and now there is not much room for fresh blood?

If you do not get enough fresh blood to your body, some organs can get hurt.

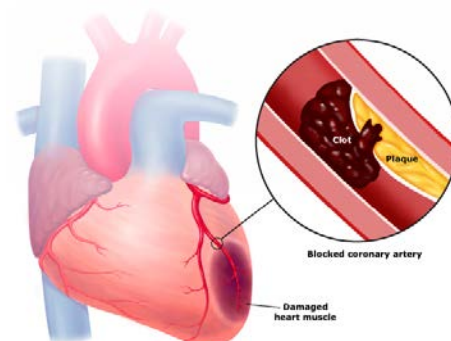
Next, we will talk about what happens to your heart, brain, and legs when they do not get enough oxygen.

## What is coronary artery disease?

Coronary artery disease is when the arteries giving fresh blood to your heart become narrow. You will not feel your arteries become narrow over time.

If they become too narrow or blocked, you can have angina or a heart attack. At this time, you might feel:

- pain in your chest
- pain in your back or arm
- upset stomach
- hard to breathe



### Angina

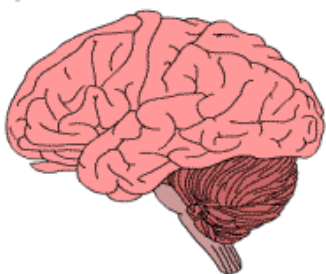
When you have chest pain for a short period of time because your body is working hard.

### Heart Attack

When chest pain does not go away. Part of your heart muscle starts to die. You can die from a heart attack.

### Heart Failure

After a heart attack, the heart can weaken and have a hard time pumping fresh blood to the heart and body



## What happens if my brain does not get enough fresh blood?

You can have a **TIA** (mini-stroke) or **stroke**.

- weakness on one side of your body
- trouble speaking
- headache
- vision problems
- dizziness

## What happens if my legs do not get enough fresh blood?

You may develop **peripheral arterial disease**. It takes a long time and you probably will not notice you have it. This disease is most common in people with diabetes, especially if they smoke.

**If you have the signs and symptoms of a heart attack or a stroke, call 9-1-1!**

## Risk Factors

### There are two types of risk factors

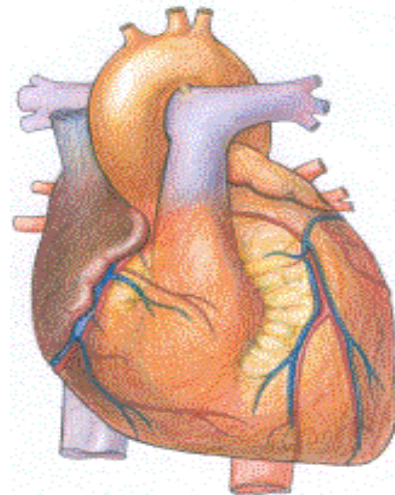
- Things you cannot control
- Things you can control

### Risk factors you cannot control

- Age
  - Men over 55 years old and women over 65 years are at greater risk
- Sex
  - Women who have had menopause are at greatest risk
  - Men are at greater risk than women who have not had menopause
- Race
  - People with South Asian, African, or First Nations heritage are at greatest risk
- Family History
  - If you have a parent, brother, sister, or child who has heart disease or has had a stroke, you have more risk

### Risk factors you can control

- High cholesterol level
- Smoking
- High blood pressure
- Type 2 diabetes
- Obesity
- Physical inactivity



## Let's Talk About Cholesterol!

“Ko – less – ter – all”

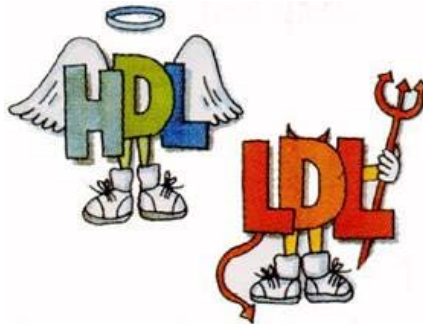
- Cholesterol is a type of fat.
- Our body needs it. It travels in our bloodstream.
- But too much cholesterol is bad for your arteries. It builds up and forms a plaque that can stop your blood moving to where it needs to go.
  - Think about when a pipe in your house gets plugged.
- There are no symptoms. It takes many years for the fat to build up.
- Cholesterol comes from 2 sources:
  - Your body makes it.
  - It is in the food we eat.

### The Two Types of Cholesterol

#### HDL

##### “Good” cholesterol

- This type is good to have
- Women naturally have higher levels than men
- You can increase your HDL levels with:
  - **exercise**
  - moderate alcohol intake



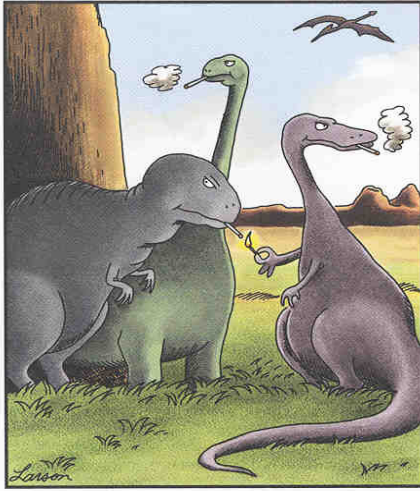
#### LDL

##### “Bad” cholesterol

- This type is bad to have because it makes plaques
- It is found in foods with a lot of fat such as animal products and fried foods
- You can decrease your LDL levels by:
  - choosing low fat meat and dairy products
  - eating foods high in fibre

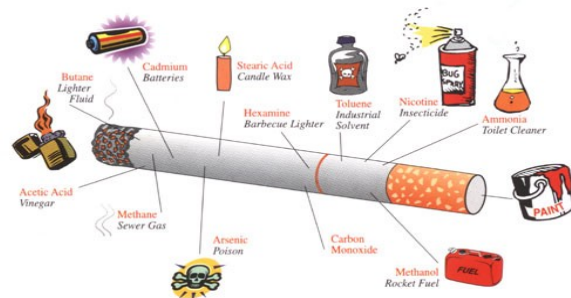
Some doctors prescribe a medicine called a statin to help people lower their LDL cholesterol

## Cigarette Smoking



The real reason dinosaurs became extinct

- Increases your blood pressure
- Decreases your HDL
- Damages your arteries and blood cells
- Makes your blood “stickier” and more likely to clot
- Increases your risk for heart attack and stroke
- Do you know how many chemicals are in a cigarette? \_\_\_\_\_



### Quitting smoking will result in **IMMEDIATE** benefits!

- 8 hours: level of oxygen in your blood returns to normal
- 48 hours: risk of heart attack decreases, your sense of smell and taste improve
- 72 hours: you can breathe easier and fuller
- 2 weeks to 3 months: your blood moves better and your lungs work better
- 6 months: less coughing, sinus problems, and shortness of breath. More energy.
- 1 year: **risk of heart attack is cut in half**
- 10 years: risk of dying from lung cancer is cut in half

**Quitting smoking is one of the best ways you or your loved one can improve health.**

Quitting can be very hard. Most people try many times before they finally quit.

Medication or nicotine patches/gum are now free when prescribed by a doctor.

## High Blood Pressure

- High blood pressure, or **hypertension**, is called a “silent killer” because there are no warning signs or symptoms
- Over time, high blood pressure damages the blood vessel walls which makes it easy for plaques to build up
- It is important to have your blood pressure checked at least once every 2 years
- A single high reading does not mean that you have hypertension. Blood pressure can rise for a short time when you exercise or are scared. Check again on 2 other days when you are calm and relaxed.
- Your blood pressure can be controlled by
  - Reducing your salt intake
  - Losing weight if needed
  - Reducing your alcohol intake
  - Exercising regularly
  - Eat a healthy balanced diet with fresh fruit and vegetables, low fat dairy, high fiber, and whole grains



## Waist-to-Hip Ratio



Some people carry fat on their bellies (apples).  
Some people carry fat on their hips (pears).

Carrying extra fat around your belly can hurt your health, even if your weight is low.

- **Increased risk of heart disease and stroke**
- Harder for the body to control blood sugar increasing risk for diabetes

Measure waist at the belly button.

Measure hip at the widest part of your hips.

# I my heart

What are my risks for heart disease and stroke?

## Age and Sex

- Man over 55 years  
 Woman after menopause

## Race

- South Asian heritage  
 African heritage  
 F

## Family History

- A close member of my family has heart disease  
 A close member of my family has had a heart attack or stroke

## Risk factors that I have the power to change

- I smoke cigarettes  
 I drink more than one serving of alcohol per day  
 I often eat red meat, high fat dairy, or fried foods  
 I often add salt to my food or eat salty foods such as chips or ready-to-eat meals  
 I do not exercise or add physical activity to my day

**One small change I can make to reduce my risk for heart disease and stroke is:**

---



---

**My blood pressure is:**

---

**My hip-to-waist ratio is:**

---

## Heart Disease part 2

### Physical Activity = Being Active!

- Being physically active will reduce your chance of heart disease or stroke by 50%!
- “Being active” can include:
  - Gardening
  - Walking
  - Running
  - Playing with your children
  - Raking leaves in the yard
  - Housework
- ANY type of physical activity will have POSITIVE impact on your heart health



**What do you like to do to be physically active?** \_\_\_\_\_

**But how much exercise do I need to do to help my heart?**

**Try being “FITT”**

**F** – Frequency (How many times each week)— 4 to 7 days each week

**I** – Intensity (How hard do I need to exercise) – Moderate

- You should be able to speak a sentence before losing your breath. If you can sing a song, you should exercise harder!

**T** – Time (How long to exercise) – 30 to 60 minutes

**T** – Type (What kind of exercise) – Try walking, jogging, bike riding, swimming, or dancing!



### How does being active help my heart?

- Lose extra weight and stay a healthy weight
- Lower high blood pressure
- Increase your HDL (the “good” cholesterol)
- Reduce your LDL (the “bad” cholesterol)
- Manage your stress

### But it can be hard to add exercise to my life. How can I make it easier?

Try to make exercise and physical activity part of your life, not just a short-term goal!

- Choose activities you enjoy.
- Start slowly. Every couple of weeks, exercise for a few more minutes time **OR** exercise a bit harder.
- Exercise with a friend or family member.
- If you feel any of the following symptoms, stop what you are doing and tell your healthcare provider
  - short of breath and cannot catch your breath after 5 minutes of rest
  - dizzy
  - pain or discomfort in your chest, shoulders or arms



**“What fits your busy schedule better, exercising one hour a day or being dead 24 hours a day?”**

## The Heart and Diabetes



### What is diabetes?

- Your body naturally makes insulin
- The insulin breaks down the sugar that comes from the food you eat and turns it into energy
- Diabetes happens when your body does not make enough insulin, or when your body does not use the insulin that it does make.
- We will learn more about diabetes in a future session of Healthy Selves, Healthy Communities

### Three Types of Diabetes

#### Type 1 Diabetes

- Usually starts in children or teenagers.
- The body no longer produces insulin. It is treated with insulin.
- 10% of people with diabetes have Type 1.

#### Type 2 Diabetes

- Happens when your body does not make enough insulin, or when the body does not use the insulin that is made.
- It usually starts in overweight adults and is now seen in overweight children
- 90% of people with diabetes have Type 2.
- **It is preventable by exercising and eating a healthy diet**

#### Gestational diabetes

- Is only seen in a small number of pregnant women
- It usually goes away once the baby is born
- It raises the risk of the mother and the baby of having Type 2 diabetes later in life

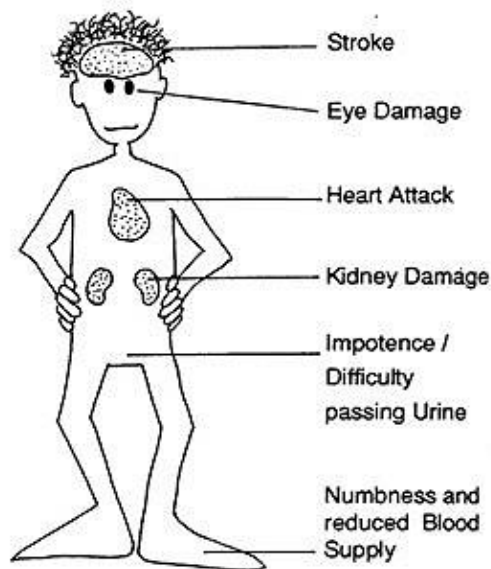
## How does diabetes hurt my heart and blood vessels?

Diabetes will increase your risk of

- high blood pressure
- atherosclerosis (narrowing of the arteries)
- coronary artery disease
- stroke

About 80% of people with diabetes die from heart disease

Women with diabetes are more likely than men with diabetes to have heart attacks, angina (chest pain) or heart surgery



## How can I lower my risk of heart disease if I have diabetes?

- Your doctor will take blood tests to look at your blood sugar levels and blood cholesterol levels. They will check your blood pressure. You may be given medication to help control blood sugar, blood cholesterol, or blood pressure.
- Add physical activity and exercise to your life
- Eat healthy foods
- If you are overweight, talk with your doctor about losing weight. They can help you to make sure you lose weight safely.

## Heart Healthy Nutrition

Nutrition Facts	
Per 3/4 cup (175 g)	
Amount	% Daily Value
<b>Calories</b> 160	
<b>Fat</b> 2.5 g	4 %
Saturated 1.5 g	8 %
+ Trans 0 g	
<b>Cholesterol</b> 10 mg	
<b>Sodium</b> 75 mg	3 %
<b>Carbohydrate</b> 25 g	8 %
Fibre 0 g	0 %
Sugars 24 g	
<b>Protein</b> 8 g	
Vitamin A 2 %	Vitamin C 0 %
Calcium 17 %	Iron 0 %

### Fat

- healthy fats are
  - unsaturated
  - monounsaturated
  - polyunsaturated

unhealthy fats are

- saturated

### Salt

- salt is called **sodium** on nutrition labels
- look for foods with low sodium levels

### Fibre

- look here to find foods with fibre



## Salt = Sodium

We need to eat a little salt to be healthy. But most prepared foods have too much salt.

Salt is called sodium on nutrition labels. Add up the amount of sodium on the label. We should eat **less than 2300mg of sodium**.

Try to eat less of these foods

- canned soup
- processed meat like hot dogs or lunch meat
- ready-to-eat meals
- condiments like ketchup, pickles, or soy sauce
- salty snacks like potato chips
- bottled sauces or dressings

Try these tips to eat less salt

- look for low salt or low sodium foods
- eat more fresh fruits and vegetables
- rinse canned beans or vegetables with water to wash off salt
- try these seasonings to add flavour
  - garlic
  - lemon juice
  - fresh or dried herbs

## Eat Fruits and Vegetables

Try to eat 4-10 servings every day

- Fruits and vegetables are high in fibre
- Fresh, frozen, or canned
- If choosing canned fruit, look for fruit canned in water or low sugar syrup
- Fruits and vegetables have vitamin A and C. Both of these vitamins help protect the arteries from the build up of fat
- Look for colourful fruits and vegetables, especially dark green, orange, and red.



## Fats and Oils

The body needs some fats to work properly. Fats are needed to get nutrients from food.

Other fats are not good for the body. They raise bad cholesterol (LDL) and can lead to heart disease and stroke. Try to avoid eating these fats.

All fats have many calories. Eat only 2-3 tablespoons of oil or fat each day, even if it is a

### Good fats

“unsaturated”

“mono-unsaturated”

“poly-unsaturated”

- olive, soybean, or canola oil
- raw nuts – especially walnuts. Also almonds, pecans, hazelnuts, pistachios
- cold water fish – sardines, salmon, mackerel, herring
- avocados
- flax seeds

### Bad fats

“saturated”

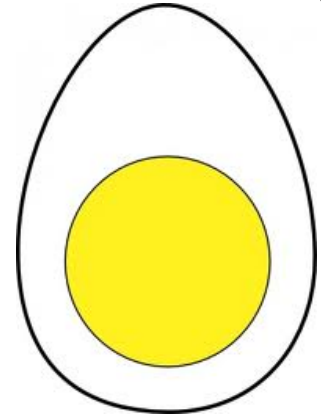
“trans-fats”

“hydrogenated”

- fatty cuts of meat
- full fat dairy products
- butter, ghee
- lard
- hard margarine
- palm oil

### But what about eggs? I've heard egg yolks are bad for you?

- eggs do not dangerously raise cholesterol levels for healthy people
- healthy adults can eat 1 egg each day
- people with Type 2 diabetes or high blood cholesterol should eat no more than 2 eggs each week
- try preparing eggs with little fat – boil, poach, use a non-stick pan, or a small amount of unsaturated oil



### Eat More Foods With Fibre



#### Soluble Fibre

This kind of fibre helps lower blood cholesterol and control blood sugar levels

- oats, oatbran
- legumes
  - beans
  - peas
  - lentils
- some fruits
  - apples
  - strawberries
  - citrus fruits

#### Insoluble Fibre

This kind of fibre helps you stay a healthy weight

- whole grains
  - brown rice
  - whole wheat flour
- fruits and vegetables
  - especially leafy green veggies
  - keep skins that are edible such as apples or new potatoes



## Happy Hearts Alliance

Happy Hearts is a community-based program of exercise, nutrition help, emotional support and lifestyle change education.

It helps patients and their families heal after heart attack, heart disease, or heart surgery. It is at the Robert Lee YMCA and the Kensington and Dunbar community centres.

The Happy Hearts program is also good for people with heart disease or for people with two or more risk factors for heart disease such as:

- diabetes,
- high cholesterol,
- high blood pressure,
- obesity,
- smoking,
- family history of early heart disease
- chronic kidney disease.

Participants meet each week for a 60-minute exercise class.

Participation in this program also gives you access to all Park Board pools and fitness centres in Vancouver.



## Nutrition

**Eat food. Not too much. Mostly plants.** – Michael Pollan

### Eat food

Try to choose unprocessed foods such as:

- fruits and vegetables
- whole grains
- low fat dairy
- lean cuts of meat, fish, seafood
- beans, lentils
- nuts, seeds
- eggs

These foods are naturally low fat, low salt, high fibre.

They can also help lower your risk of:

- heart disease
- type 2 diabetes
- cancer (especially colon cancer)

### Not too much

Use the **Canada Food Guide** to learn how many servings of each type of food you should eat.

Learn how big a serving is. It might be smaller than you think!

### Mostly plants

Many people eat more meat than they need!

Plant foods are healthy:

- High fibre
- Low saturated fat (bad fat)
- Zero trans fat (bad fat)
- Have unsaturated fat (good fat)
- Have lots of nutrients

Beans, lentils, nuts, seeds, and whole grains have protein too!

## Portion Sizes

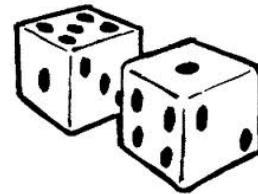
Knowing how big a portion size should be can help you eat a healthy amount of food

Be careful! Portion sizes listed on a package might not be the same size as a portion in the Canada Food Guide.

- The bagel bag says 1 serving of bagel = 1 bagel
- The Canada Food Guide says 1 serving of bagel = ½ bagel

**Ok, I've got a copy of the Canada Food Guide, but how do I figure out a serving size?**

- Use measuring cups or a scale to measure food at home
- You can also guess the amount
  - 1 serving of meat = a deck of cards
  - 1 cup of food = a tennis ball or your fist
  - 1 serving of cheese = 3 dice
  - 1 serving of butter or margarine = 1 die
  - 1 serving peanut butter or salad dressing = golf ball



### Tips to control the amount of food you eat

- use smaller dishes
- put your knife, fork, spoon, or chop sticks down between bites
- wait 20 minutes before going back for second helpings. It takes 20 minutes for your stomach to tell your brain that it is full!

## A Closer Look at a Nutrition Label

### Portion Size

- compare it to the amount you *really* plan to eat!

### Percent daily value

- the percent amount of a nutrient you need for the day in **one serving**

Each of these nutrients should be lower than 15% per serving to be healthy

Try to eat foods with close to 15% fibre

Nutrition Facts	
Per burger (130 g)	
Amount	% Daily Value
<b>Calories 200</b>	
<b>Fat 9 g</b>	<b>14 %</b>
Saturated Fat 2 g + Trans 1 g	15 %
<b>Cholesterol 70 mg</b>	
<b>Sodium 500 mg</b>	<b>33 %</b>
<b>Carbohydrate 4 g</b>	<b>1 %</b>
Fibre 0 g	0 %
Sugars 0 g	
<b>Protein 25 g</b>	
Vitamin A 0%	Vitamin C 0 %
Calcium 4 %	Iron 2 %

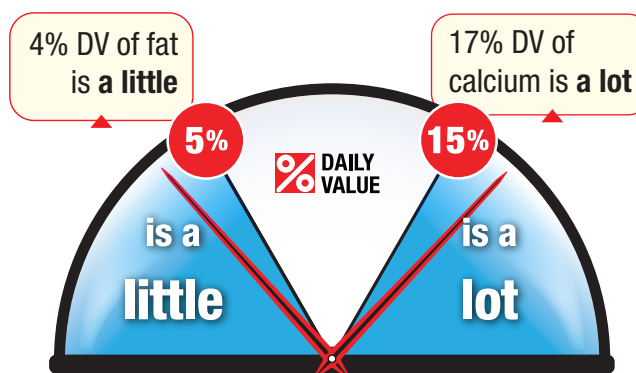
## Can you tell me more about the % daily value? It's confusing!

The **% daily value** (%DV) tells you the percentage amount of a nutrient in **one** serving of that food.

We want to eat only a little of some nutrients. Look for 5% or lower for fat or sodium.

We want to eat more of other nutrients because they make us healthy. Look for around 15% for these nutrients:

- Fibre
- Calcium
- Iron
- Vitamin A
- Vitamin C



## What about the other health labels I see on packaged foods? Do they mean the food is healthy?

Many companies put “healthy” labels on their foods to sell more products. Be smart. Look at the nutrition label, check how big a portion size is, and look at the % daily values.

- low sodium food should have less than 5% sodium
- low fat food should have less than 5% fat

Organic does not always mean the food is healthy! Look at the nutrition label to figure out if the food is good for you.

Many companies are starting to put this label on their food to tell you it is healthy.



**Just because a company puts a green check mark on the box, does not mean the food is good for you!**

## Green Beans

<b>Nutrition Facts</b>	
Serving Size: Per ½ cup (125mL)	
Amount	% Daily Value
<b>Calories</b> 20	
<b>Fat</b> 0g	0%
Saturated 0g	0%
+ Trans 0g	
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 15 mg	1%
<b>Carbohydrate</b> 4g	1%
Fibre 2g	8%
Sugars 2g	
<b>Protein</b> 1g	
Vitamin A	4%
Vitamin C	6%
Calcium	2%
Iron	4%

## Mixed Beans

<b>Nutrition Facts</b>	
Serving Size: Per ½ cup (125mL)	
Amount	% Daily Value
<b>Calories</b> 130	
<b>Fat</b> 1g	2%
Saturated 0.3g	1%
+ Trans 0g	
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 430 mg	18%
<b>Carbohydrate</b> 23g	18%
Fibre 7g	28%
Sugars 1g	
<b>Protein</b> 8g	
Vitamin A	0%
Vitamin C	0%
Calcium	4%
Iron	10%

Which beans would you choose if you want more fibre? \_\_\_\_\_

## Muesli Yogurt

<b>Nutrition Facts</b>	
Serving Size: 175g	
Amount	% Daily Value
<b>Calories</b> 220	
<b>Fat</b> 6g	9%
Saturated 2.5g	13%
+ Trans 0g	
<b>Cholesterol</b> 15mg	
<b>Sodium</b> 80 mg	3%
<b>Carbohydrate</b> 33g	11%
Fibre 2g	6%
Sugars 22g	
<b>Protein</b> 10g	
Vitamin A	6%
Vitamin C	2%
Calcium	15%
Iron	6%

## No Fat Yogurt

<b>Nutrition Facts</b>	
Serving Size: 175g	
Amount	% Daily Value
<b>Calories</b> 80	
<b>Fat</b> 0.1g	1%
Saturated 0.2g	1%
+ Trans 0g	
<b>Cholesterol</b> 5mg	
<b>Sodium</b> 110 mg	5%
<b>Carbohydrate</b> 12g	4%
Fibre 0g	0%
Sugars 12g	
<b>Protein</b> 8g	
Vitamin A	0%
Vitamin C	2%
Calcium	30%
Iron	0%

Which yogurt has more fat? \_\_\_\_\_

Which yogurt has more calcium? \_\_\_\_\_

## Vegetable Soup

<b>Nutrition Facts</b>	
Serving Size: Per ½ cup (125mL)	
Amount	% Daily Value
<b>Calories</b> 80	
<b>Fat</b> 0g	0%
Saturated 0g	0%
+ Trans 0g	
<b>Cholesterol</b> 0mg	
<b>Sodium</b> 770 mg	32%
<b>Carbohydrate</b> 17g	6%
Fibre 2g	8%
Sugars 4g	
<b>Protein</b> 3g	
Vitamin A	15%
Vitamin C	2%
Calcium	2%
Iron	6%

## Low Sodium Veggie Soup

<b>Nutrition Facts</b>	
Serving Size: Per ½ cup (125mL); 250mL prepared	
Amount	% Daily Value
<b>Calories</b> 90	
<b>Fat</b> 1g	2%
Saturated 0g	0%
+ Trans 0g	
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 480 mg	20%
<b>Potassium</b> 250 mg	7%
<b>Carbohydrate</b> 19g	6%
Fibre 3g	12%
Sugars 8g	
<b>Protein</b> 2g	
Vitamin A	4%
Vitamin C	0%
Calcium	2%
Iron	4%

Which soup would you choose if you were on a low salt diet? Why?

---

## Mocha Wafers

<b>Nutrition Facts</b>	
Serving Size: Per 3 cookies (30g)	
Amount	% Daily Value
<b>Calories</b> 150	
<b>Fat</b> 9g	14%
Saturated 4g	20%
+ Trans 0g	
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 25 mg	1%
<b>Carbohydrate</b> 19g	6%
Fibre 1g	4%
Sugars 4g	
Sugar Alcohols 7g	
<b>Protein</b> 1g	
Vitamin A	0%
Vitamin C	0%
Calcium	0%
Iron	4%

## Cocoa Somersaults

<b>Nutrition Facts</b>	
Serving Size: Per 19 pieces (40g)	
Amount	% Daily Value
<b>Calories</b> 190	
<b>Fat</b> 9g	14%
Saturated 1g	5%
+ Trans 0g	
<b>Cholesterol</b> 5mg	1%
<b>Sodium</b> 50 mg	2%
<b>Carbohydrate</b> 20g	7%
Fibre 4g	16%
Sugars 6g	
<b>Protein</b> 8g	
Vitamin A	0%
Vitamin C	2%
Calcium	6%
Iron	12%

Both of these cookies have 14% daily value of fat. One of them is healthier.

Which one is healthier and why? \_\_\_\_\_

# Diabetes

## What is diabetes?

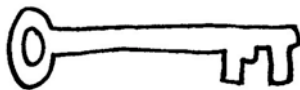
Your body gets energy from making **glucose** (sugar) from foods like bread, potatoes, rice, pasta, milk, and fruit

To use this glucose, your body needs **insulin**, which is produced naturally by your pancreas

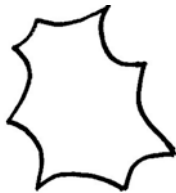
Insulin is a hormone that helps your body control the level of glucose in the blood

Insulin breaks down the sugar that comes from the food you eat and turns it into energy

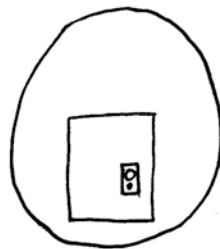
Insulin is like the key that opens the door so that the sugar in your blood can enter the cells to be converted into energy



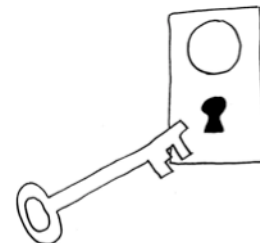
Insulin



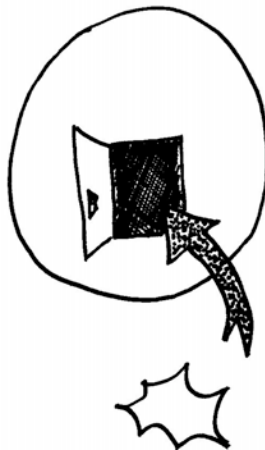
Glucose



Cell



Insulin unlocks the cell



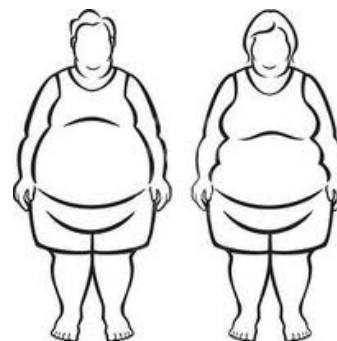
Glucose enters the cell

## There are 3 types of diabetes



**Type 1 Diabetes** usually develops in children, teenagers, young adults and even people in their 30s. It occurs when your body no longer produces insulin. It is treated with insulin. 10% of people with diabetes have Type 1.

**Type 2 Diabetes** occurs when your body does not produce enough insulin, or when the body does not effectively use the insulin that is produced. It often develops in overweight adults.



**90% of people with diabetes have Type 2.**



**Gestational diabetes** occurs in 2 to 4% of women during pregnancy and usually goes away after the birth of the baby. It can increase the risk of the mother and the baby developing diabetes later in life.

### **Good news!**

You can live a long and healthy life if you keep your blood glucose levels at a healthy level

## Prediabetes

**Prediabetes** is an “early alert system” that warns us about type 2 diabetes

Prediabetes means your blood glucose levels are higher than normal, but not yet high enough to be diagnosed with type 2 diabetes (7.0 mmol/L or higher)

Not everyone who has prediabetes will develop type 2 diabetes!



Blood glucose levels = the amount of sugar in your blood

Canadian Diabetes Association recommends that everyone gets screened by fasting plasma glucose once they reach age 40 and every 3 years after that.

If you have risk factors for diabetes, then you should get screened earlier or check your blood glucose more frequently

### Good news!

If you have prediabetes and take steps to manage your blood glucose, you can delay or prevent type 2 diabetes from developing

You can make small changes such as increasing your physical activity and eating healthy, low fat meals

## Risk Factors for Type 2 Diabetes

### Unmodifiable

(Risks you cannot change)

Age 40 or older

Close relative (parent or sibling) who has type 2 diabetes

Ethnicity: Aboriginal, Hispanic, Asian, South Asian, or African descent have higher risk

History of gestational diabetes or gave birth to a baby that weighed over 4 kg (9 lbs)

### Modifiable

(Risks you *can* change)

Have heart disease

High blood pressure

High blood cholesterol

Overweight (especially around the abdomen → Apple shaped body)



### Reduce your risk

If you are over age 40, have a family history of diabetes, are overweight, have high blood pressure or high blood cholesterol, ask your doctor to test your blood sugar levels

Achieve and maintain a healthy weight

Become physically active

Eat a healthy, low-fat diet

## Signs and Symptoms of Diabetes

### Extreme fatigue or low energy

- body can't use glucose for energy without insulin

### Blurry vision

### Very thirsty

### Dry, itchy skin

### Unexpected weight loss or gain

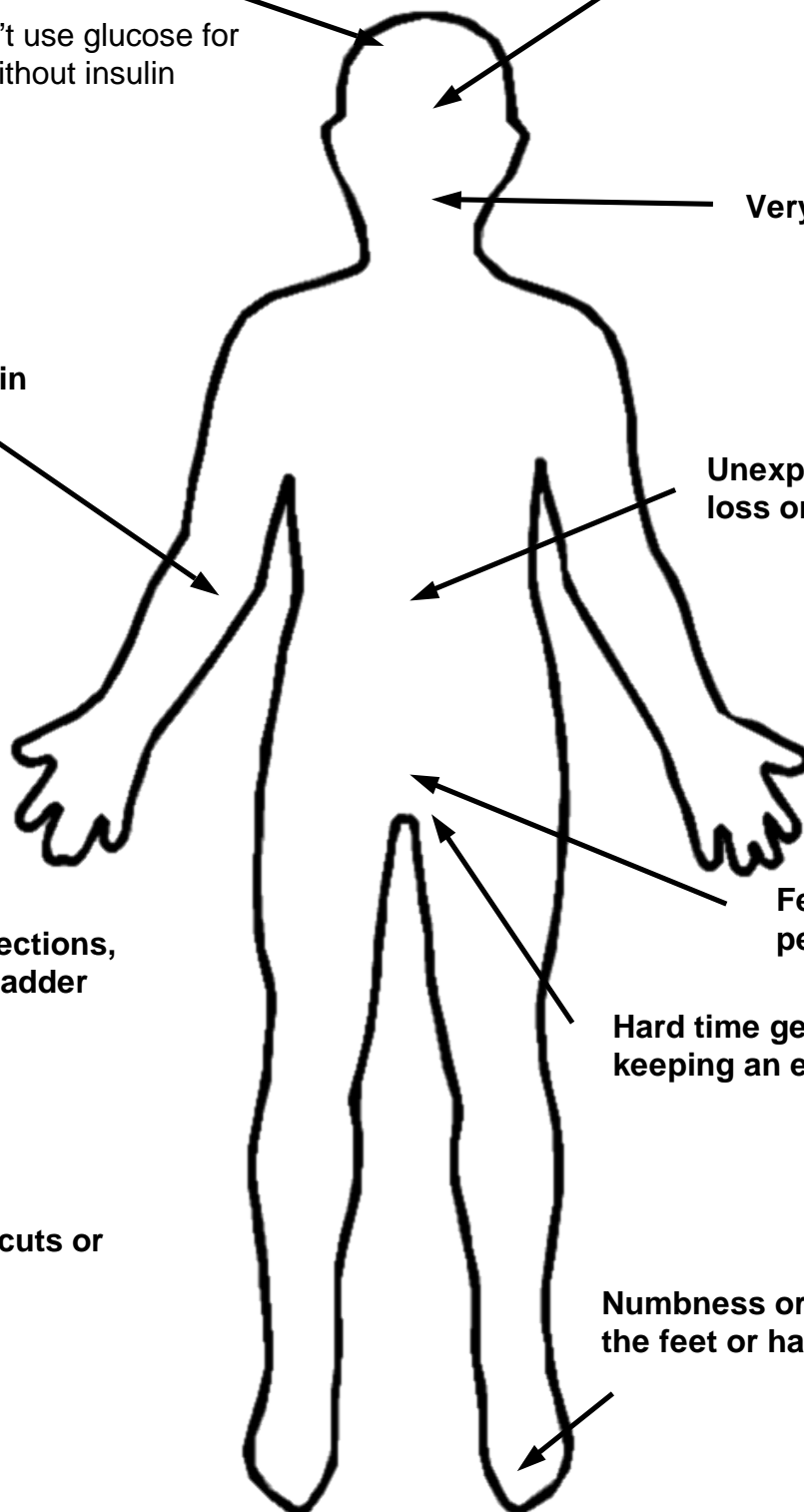
### Frequent infections, especially bladder infections

### Feel the need to pee very often

### Slow-healing cuts or bruises

### Hard time getting or keeping an erection (men)

### Numbness or tingling in the feet or hands



## Diagnosis of Diabetes

If you have some of the risk factors and symptoms of diabetes, your doctor might order some blood tests to learn more information



### **Fasting blood glucose (FPG)**

You cannot have anything to eat or drink (except water) for at least 8 hours before taking the test

It is best to get this test done first thing in the morning because you have not eaten during the night

A result of 7.0 mmol/L or higher means diabetes

### **Casual blood glucose**

This test can be done at any time and it does not matter when you last ate or drank

A result of 11.0 mmol/L or higher and you have symptoms of diabetes means diabetes

### **Oral glucose tolerance test**

For this test, you are given a special sweetened drink before the blood test

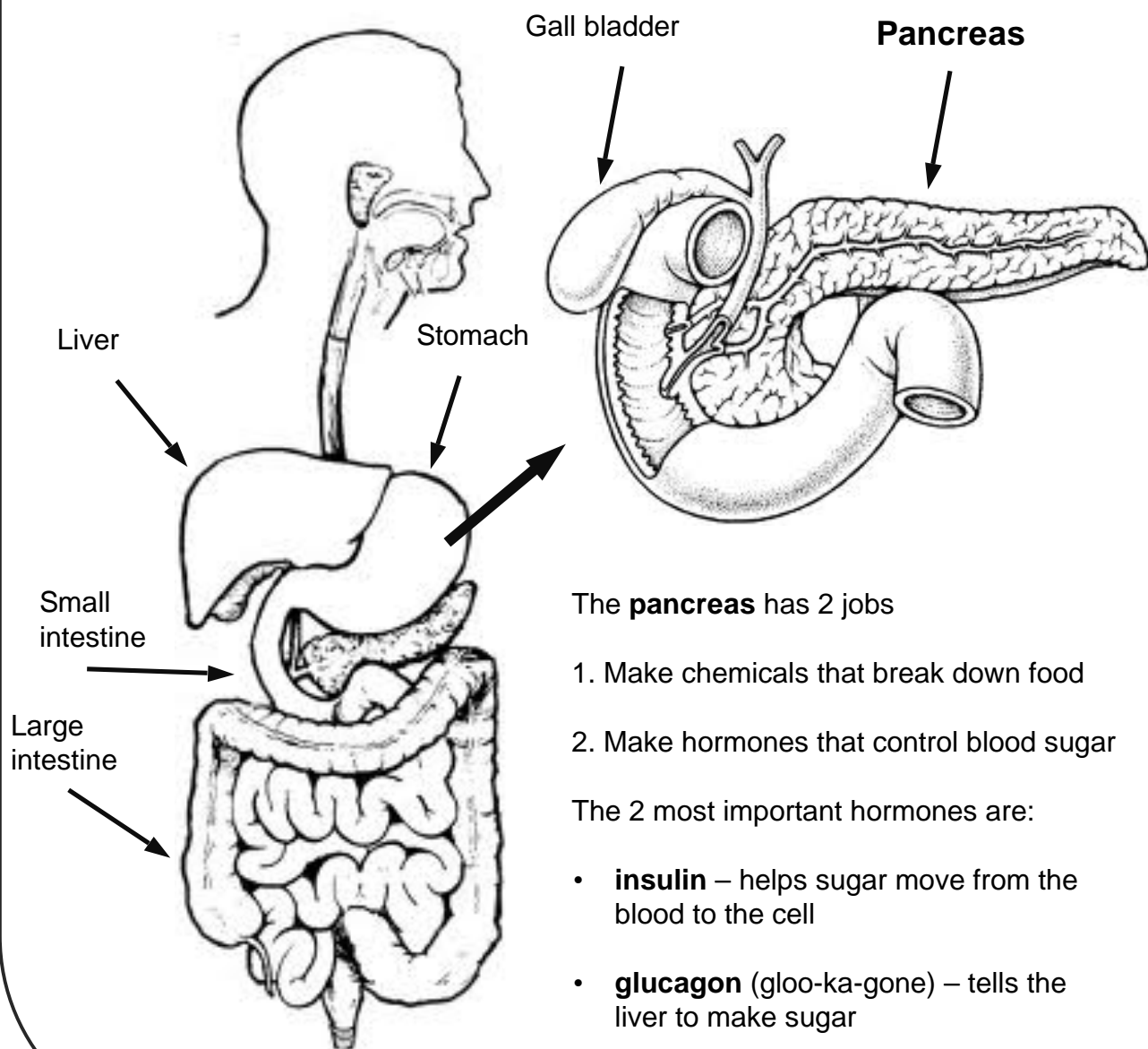
A result of 11.1 mmol/L or higher after 2 hours of having that sweetened drink means diabetes

## Diabetes Continued

**Glucose** (sugar) comes from the food we eat. The liver also makes some glucose if we miss a meal

Sugar travels around our body in blood. **Insulin** helps the sugar enter the cell.

The **pancreas** (pan-kree-us) makes insulin. If a person eats lots and lots of sugary food, the pancreas makes lots and lots of insulin. Over time, the pancreas gets tired and cannot make enough insulin. This is when people develop type 2 diabetes.



The **pancreas** has 2 jobs

1. Make chemicals that break down food
2. Make hormones that control blood sugar

The 2 most important hormones are:

- **insulin** – helps sugar move from the blood to the cell
- **glucagon** (gloo-ka-gone) – tells the liver to make sugar



Hey, are you ok?  
You look really  
pale and sweaty.

I'm fine!  
Leave me  
alone!



Wow...you're also  
really cranky.  
That isn't like  
you. Are you sure  
you're ok?

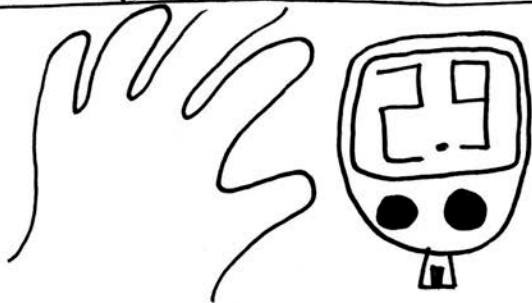
Well...I do  
feel dizzy.  
And this  
headache is  
pretty bad.



My lips are  
tingling too.  
I think my  
blood sugar is  
dropping.



Then I'll get you  
some juice, ok?  
I'll be right back



2.9 is low! Good  
thing my friend is  
getting me some  
juice!

20 MINUTES LATER...

Thanks for  
helping me  
out! I feel  
better now.  
Let's get some  
lunch!



Sounds good.  
Let's go!

## Hypoglycemia

Hy-po-gly-see-mee-a

Hypo = low

glyce- = sugar

-emia = in the blood

**Hypoglycemia = low blood sugar**

Someone with low blood sugar looks like:

- sweating
- sleepy
- irritable or cranky
- confused
- pale

Someone with low blood sugar feels like:

- dizzy
- weak, tired
- headache
- confused
- fast heart beat
- hungry
- numb tongue or lips



The person will check how much sugar is in their blood. They use a small machine. The number on the screen tells how much sugar is in the blood.

Normal blood sugar ranges from 4.0 to 7.0.

Mild low blood sugar ranges from 2.8 to 3.9

Moderate low blood sugar is less than 2.8 and the person is still awake

Severe low blood sugar is less than 2.8 and the person will not wake up

## How to help someone with low blood sugar

Low blood sugar is treated by eating or drinking sugar.  
Some people carry sugar with them, just in case.

Most people can treat low blood sugar by themselves. You can ask if they want help.

### **If someone with diabetes will not wake up, call 9-1-1.**

Do not give them food or drinks. They can only be helped by medical staff.

### **Step 1 – Test blood sugar with a blood testing machine**

- Sometimes people do not have their machine if they are outside of the house. They should know how they feel when they have low blood sugar.

### **Step 2 – Eat or drink sugar**

Mild low blood sugar (2.8-2.9) – Eat 15 grams of sugar

- 175ml (3/4cup) of juice or soft drink (NOT sugar free!)
- 3 teaspoons or packets of sugar dissolved in water
- 6 lifesavers
- 1 tablespoon honey
- 15g of glucose tablets

Moderate low blood sugar (less than 2.8 and awake) – Eat 20 grams of sugar

- **20g of glucose tablets is the best choice**
- 1 cup of juice or soft drink (NOT sugar free!)
- 8 lifesavers
- 4 teaspoons or packets of sugar dissolved in water

### **Step 3 – When blood sugar between 4.0-7.0, eat a meal or snack**

- If the next meal is more than an hour away, give a snack.
- The snack should have 15g of carbohydrate and some protein
  - eg: half of a cheese sandwich
  - eg:crackers and peanut butter

## Nutrition to Prevent and Treat Type 2 Diabetes

That's right! You can prevent *and* treat diabetes by making changes to your diet.

Eating a **low fat** and **low salt** diet protects your heart, blood vessels, and kidneys.

### Carbohydrates

Kar-bo-hi-drates

**Carbohydrates** (carbs) are the body's main source of energy. There are 3 main types of carbohydrate: **fibre**, **sugar**, **starch**.

All 3 types of carbohydrate break down into glucose in your body. Remember how we talked about glucose giving the cells energy? We need to eat carbohydrates but some are healthier than others.

People with diabetes need to pay attention to how many carbohydrates they eat. Starch and sugar raise blood sugar levels. Fibre does not raise blood sugar levels.

#### Carbohydrate

- This value includes both sugar and fibre

#### Sugar

- If you choose between 2 foods, pick the food with the lower amount of sugar

Nutrition Facts	
Serving Size: Per 19 pieces (40g)	
Amount	% Daily Value
<b>Calories</b> 190	
<b>Fat</b> 9g	14%
Saturated 1g	5%
+ Trans 0g	
<b>Cholesterol</b> 5mg	1%
<b>Sodium</b> 50 mg	2%
<b>Carbohydrate</b> 20g	7%
Fibre 4g	16%
Sugars 6g	
<b>Protein</b> 8g	
Vitamin A	0%
Vitamin C	2%
Calcium	6%
Iron	12%

#### Fibre

- choose carbs with more than 15% DV of fibre

Food makers do not need to list the amount of **starch** in the food

## Glycemic Index

Gly-see-mic

I've heard people talk about the glycemic index. What is it?

Carbohydrates turn into sugar quickly. Other carbohydrates turn into sugar slowly.

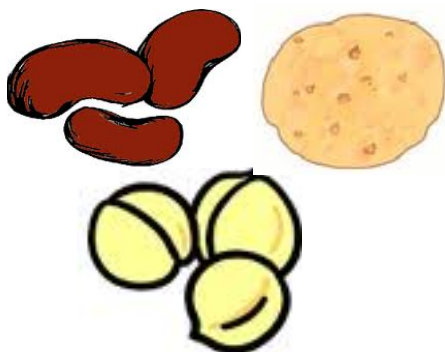
The glycemic index helps people choose healthier carbohydrate foods.

Foods with fibre turn into sugar slowly. They are **low glycemic** foods.

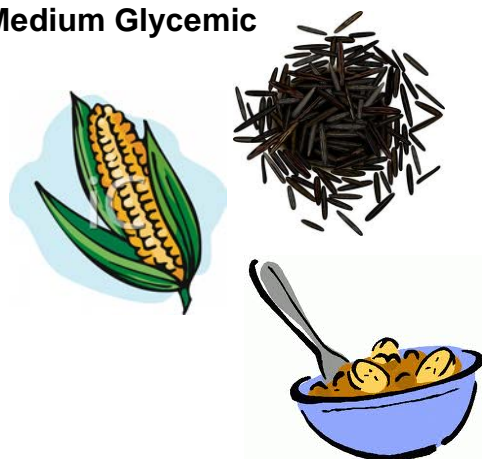
Starch and sugar turn into sugar quickly. These are **moderate and high glycemic** foods.



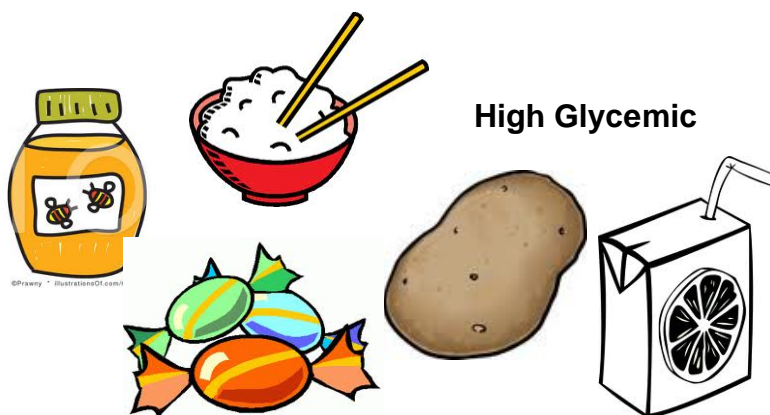
Low Glycemic



Medium Glycemic



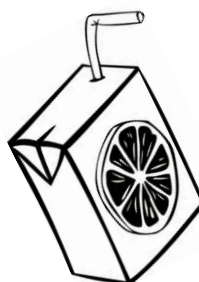
High Glycemic



## Sugar Tips

Try these tips if you want to control your blood sugar and prevent or treat diabetes.

- Choose foods high in fibre (more than 15% DV). They take longer to turn into sugar. They also help you feel full for longer.
- Choose 1 low glycemic carbohydrate per meal or snack. You will have an easier time keeping a good blood sugar.
- Swap a low glycemic food for a high glycemic food
  - eg: Choose brown rice instead of white rice
- Choose to eat a piece of fruit instead of drinking a glass of juice. Juice has lots of sugar but no fibre. It raises your blood sugar very quickly.
  - Juice is good to drink if your blood sugar is very low (less than 4).



### Exercise

- helps you lose weight
- lowers blood pressure
- makes insulin work better
- lowers LDL (bad cholesterol)

### Stress

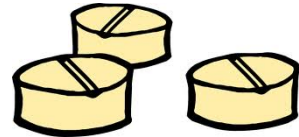
Learning how to prevent or manage stress can help you control your blood sugar

- stress triggers the body to make **cortisol**
- cortisol tells the body to make extra sugar
- cortisol tells the body to store fat around the belly
  - remember how “apple” shaped people have a higher risk of heart disease?

## Diabetic Medications: A Basic Guide

Some times diet and exercise alone cannot control blood sugar. The person will need to take **medication**. There are many different types of medications for diabetes. These 3 are the most common. If you have questions about your medication, talk to your doctor, pharmacist, or **diabetes education nurse**.

**Anti-diabetics** are pills that help the body control blood sugar.



- **Metformin** met-fore-min
  - Lowers the amount of sugar the body takes from food
  - Helps make the cells more sensitive to insulin
    - helps fix the “lock” on the cell so that glucose can be used
  
- **Glyburide** gly-byoo-ride
  - Tells the pancreas to make more insulin
  - Helps make the cells more sensitive to insulin
    - helps fix the “lock” on the cell so that glucose can be used



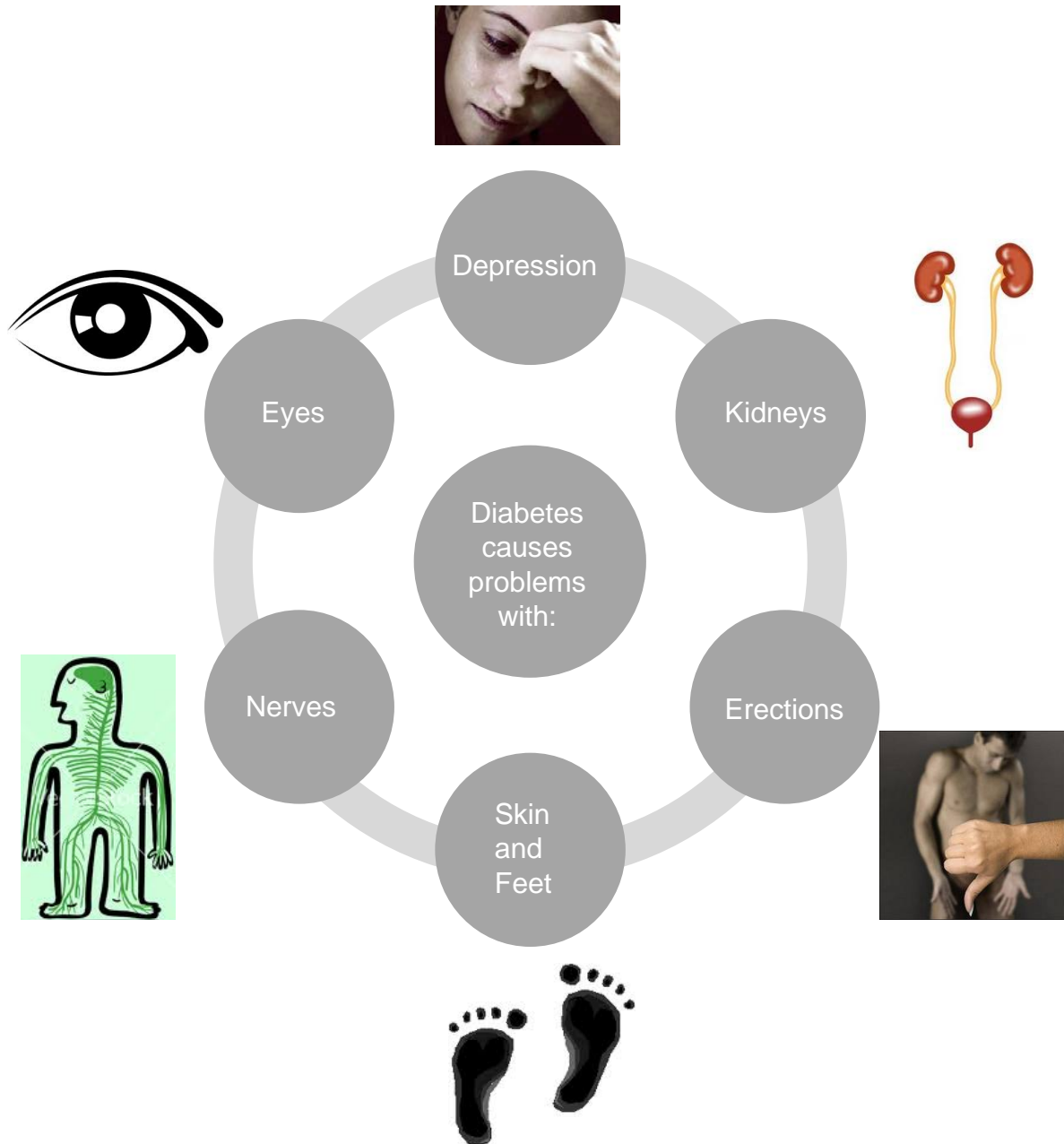
**Insulin** can be given as a drug.

- Some people with type 2 diabetes need to take insulin if pills do not work.
- There are different types of insulin. The doctor orders the best type for the patient.
- Insulin is injected into the fat below the skin.
- A few people with type 2 diabetes are given insulin when they are in the hospital. Their bodies are very stressed and insulin can be the best way to control high blood sugar.

## The Complications of Diabetes

The body can get hurt if people with diabetes often have high blood sugar. These injuries are called complications.

Complications can be prevented by keeping blood sugar at normal levels and keeping blood pressure low.



## Nerves, Skin, and Feet

### Diabetic Peripheral Neuropathy

Per-ih-fer-al Nur-oh-path-ee

Peripheral = Feet, hands, arms, legs

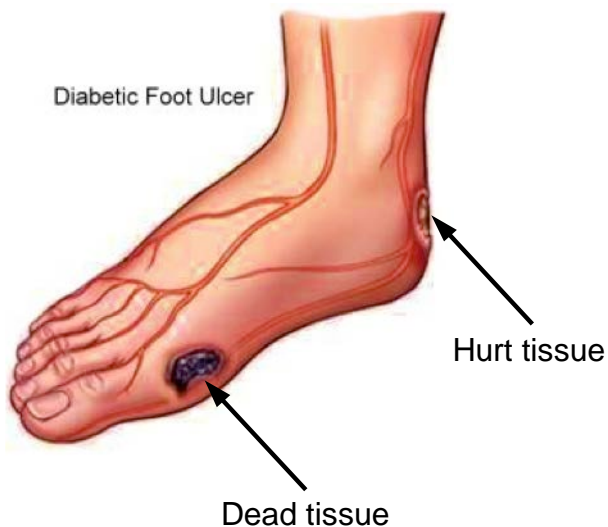
Neuropathy = Disease of the nerves

**Nerves help you feel pain, temperature, pressure.** They also control your body.

Over time, high blood sugar can cause injury to the nerves. The first nerves to get hurt are the ones in your feet and hands.

If your nerves get hurt, you cannot feel pain. If you cannot feel pain, you might not know that your foot or hand is cut or burned.

This is dangerous because the cut can get infected if it is not cared for. **If the infection does get better, the doctor might have to cut off the injured part of the body (amputation).**



#### Symptoms

- sharp shooting pains
- burning feeling
- tingling
- feels like hands or feet are pricked with pins -- “pins and needles”
- throbbing
- numbness – cannot feel pain, heat, or cold properly

#### Peripheral neuropathy can be prevented

- Try to keep blood sugar levels between 4.0 and 7.0
- Quit smoking. Smoking makes it harder for the body to heal.

If you have diabetes, your doctor will check your feet every year. They will test the feeling of different parts of your feet. Don't worry, the test does not hurt!



## Foot Care

People with diabetes need to care for their feet every day – even if your feet feel good!



### Diabetes causes 3 changes in the body that can hurt your feet:

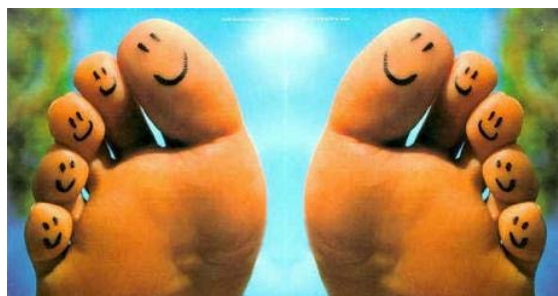
1. The nerves can get hurt. Then you cannot feel if your foot is injured
2. Blood might not flow well to the feet and hands. The blood gives food and oxygen to the tissue. Blood also takes away waste from the tissue. Bad blood flow can cause tissue to die.
3. The immune system does not work well. If a cut on your foot gets infected, your body has a hard time fighting the infection.

#### How to keep your feet healthy

- **Look at your feet every day** – if you cannot see the bottom of your feet, use a mirror. Don't forget to look between your toes!
- Keep skin soft with a little bit of lotion.
- Wear shoes that fit well.
- If taking a bath, test the water to make sure it is not too hot.
- Do not soak your feet in water.
- Dry your feet carefully after a bath or shower

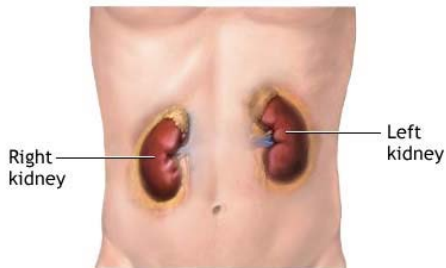
#### When to see the doctor

- If you see swelling, warmth, redness, or pain in your legs or feet
- Ask the doctor to treat corns, calluses, in-grown toe nails, warts or slivers. You can hurt your foot if you try to treat yourself.
- Your doctor should test your feet for feeling every year.
- Take your socks off at every diabetes-related visit and ask your doctor to look at them.



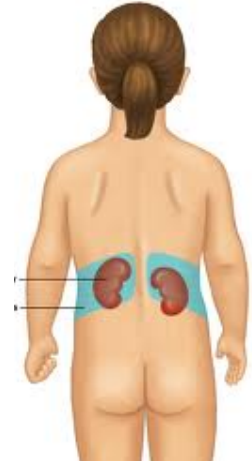
## Kidney Disease

The kidneys are organs that are shaped like beans. They sit just below your ribs.

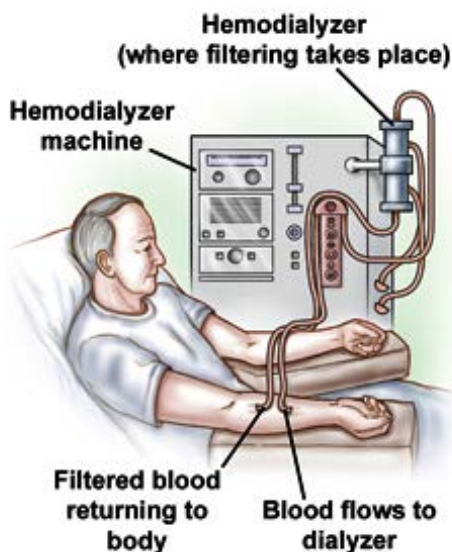


The kidneys filter **waste** from the blood. The waste is removed from the body in **urine**.

The kidneys also control how much water and salt is in your body. By controlling water and salt, the kidneys also control your **blood pressure**.



If too much sugar is in your blood, your kidneys can get damaged. The sugar scrapes through the tiny blood vessels in your kidneys. If they kidneys are hurt, they cannot filter the blood properly. This is called **kidney failure**. It takes many years to develop. Once the kidneys fail, the person needs **dialysis** (die-a-li-sis) to clean their blood. People can also have a **kidney transplant**, but kidneys are rare.



### Dialysis

- Most people go to a hospital for dialysis.
- You are connected to a machine with special tubes.
- Your blood runs through the tube into the machine.
- Waste products are filtered from your blood, just like in your kidney.
- Your blood comes back into your body from another tube.

## Screening for kidney disease

You can have no symptoms when your kidneys start to fail. Most doctors take blood to check the health of your kidneys when they check for diabetes. Kidney disease can be treated if it is found early.

If you have diabetes, your doctor will test your blood **and** urine **every year**.

### How to prevent kidney disease

- Keep blood sugar between 4 and 7
- Keep your blood pressure under control
- Stop smoking
- Have your blood cholesterol checked every year
- Eat a low-fat diet with fruit, vegetables, whole grains, and lean protein
- Exercise often

### Diabetes can hurt your bladder!

Diabetes can hurt the nerves that tell you your bladder is full

Urine backs up into the kidneys. The kidneys get hurt from the pressure.

You can get **bladder infections** easily because your urine sits too long. Bacteria also love to eat the sugar in your urine.



### Retinopathy

Reh-tin-o-path-ee

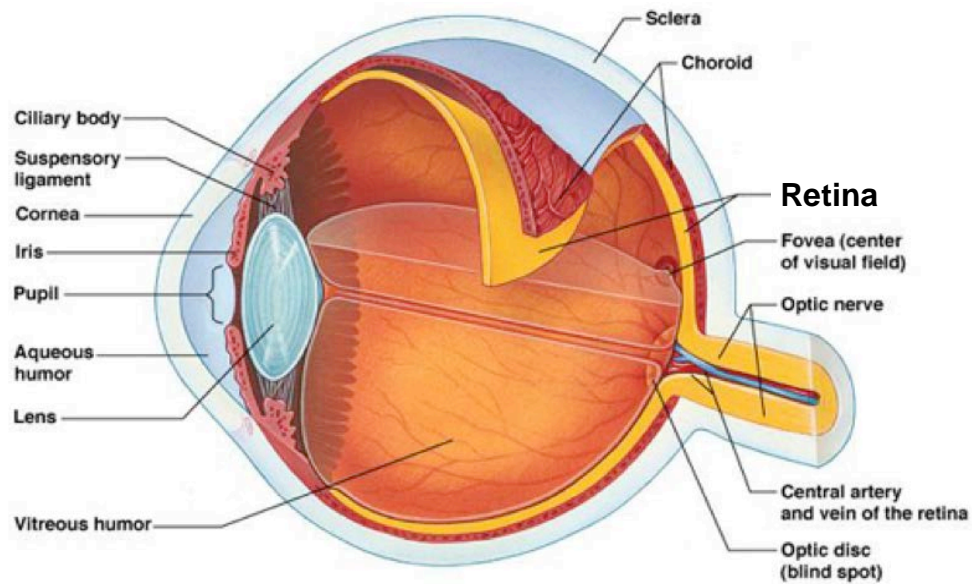
Disease of the retina.

## Eye Health

Diabetes is the largest cause of new **blindness** in Canada in people under 65 years old.

About 2 million people in Canada have some form of diabetic eye disease – **retinopathy**.

The **retina** is like a film projector at the back of your eye. It projects what we see with our eyes to our brain.



There are two types of retinopathy. Both cause blindness.

In one type, the part of the retina that lets you see colour becomes swollen. Then the retina cannot project images to your brain.

In the other type, weak blood vessels grow in the retina. They are weak and break easily. Broken blood vessels leak some blood inside the eye. Then the retina cannot project images to your brain.

### Symptoms of retinopathy

- There are no symptoms in the early stages of retinopathy.
- Blurred vision
- Flashes of light
- Sudden loss of vision
- Blotches or spots in vision – “floaters”

### How to prevent retinopathy

- Keep blood sugar between 4 and 7
- Keep your blood pressure under control
- Have your blood cholesterol checked every year
- See an eye doctor every year for an eye test

## Community Resources

### **The Canadian Diabetes Association**

Web address: [www.diabetes.ca](http://www.diabetes.ca)

- The Canadian Diabetes Association has good information about preventing diabetes, treating diabetes, and living with diabetes.
- Vancouver Diabetes Resource Centre 604-732-1331

### **The Diabetes Centre at Vancouver General Hospital**

- You must be referred to this service by your doctor.
- Access to diabetes doctors, nurses, dietician, pharmacist, social worker, and foot doctors.
- Education and counseling to live a healthy life with diabetes.

### **Vancouver Chinese Diabetes Education Centre**

28 W. Pender St. Vancouver

604-684-1628

- Diabetes education in Chinese

### **Chronic Disease Self-Management Programs**

Phone: 604-940-1273

Email: [selfmanagement@eastlink.ca](mailto:selfmanagement@eastlink.ca)

Internet: [http://www.coag.uvic.ca/cdsmp/information\\_cdsmp\\_program.htm](http://www.coag.uvic.ca/cdsmp/information_cdsmp_program.htm)

- These classes are led by trained volunteers who are living with chronic illness
- Free!
- Held at different locations around Vancouver. Call or email for more information and registration.

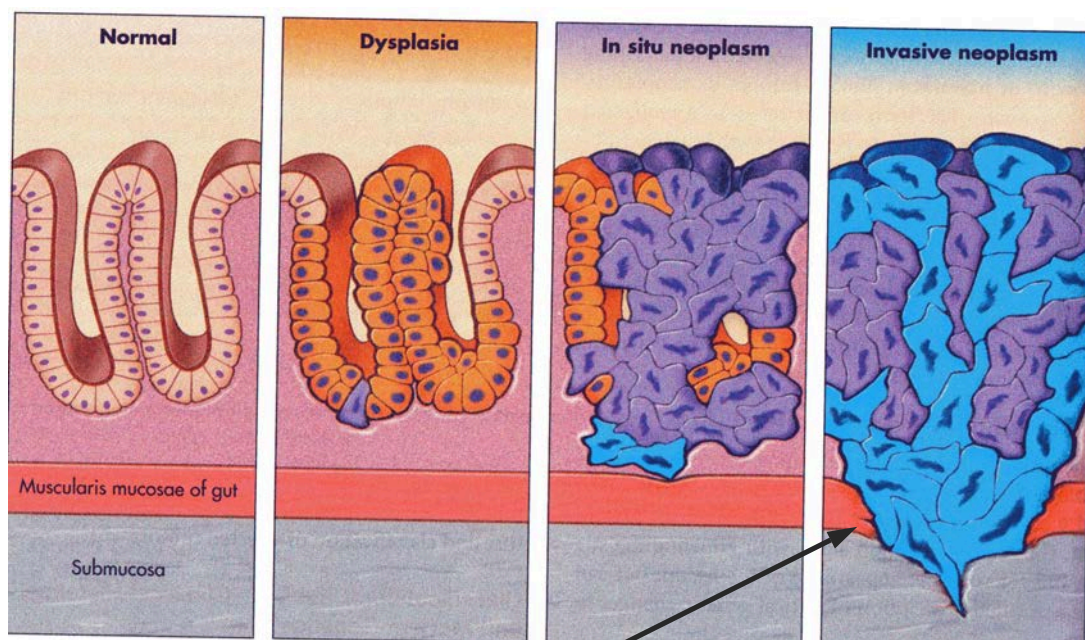
## Cancer

### What is cancer?

All cells have instructions that tell them how to make more cells. Sometimes the instructions get damaged. When this happens, too many new cells are made. These new cells are abnormal do not do the job that type of cell is supposed to do.

The abnormal cells are cancer. A group of cancer cells is called a **tumor**.

Most cancers are found in people older than 50. Their cells have been making copies for a long time. Older cells are more likely to get mistakes in the instructions



#### **Benign** Buh-nine

A tumor that is *not* cancer

#### **Oncologist** On-call-o-jist

Cancer doctor

#### **Malignant** Mah-lig-nant

A tumor that is cancer

#### **Carcinogen** Kar-sin-oh-gin

Something that causes cancer  
eg: cigarettes

#### **Metastases** Meh-ta-sta-sees

Cancer can spread from one part of the body to another.

The cancer cells move through the blood or through lymph nodes.

eg: Cells from colon cancer can move to the lungs. A person then has tumors in both the colon and the lungs

## What are some things I can do to reduce my risk of cancer?

Many cancers have risk factors specific to them.

Here are some things you can do to reduce your risk in general.

### **Eat a high fibre diet**

Choose whole grains

Try to eat lots of colourful fruits and veggies

### **Maintain a healthy weight**

Obesity has been linked to cancer

### **Quit smoking**

Tobacco is linked to lung, mouth, throat, esophageal, bladder, cervical cancer

### **Limit alcohol intake**

Alcohol is linked to liver, breast, colorectal, esophageal, throat, and mouth cancer

### **Get screened when appropriate**

Some cancers can be found early before they have a chance to do much damage

### **Know your body**

Check your skin to know what your moles normally look like

Check your breasts or testicles regularly. This will help you find changes sooner

### **Know your family history**

Some cancers are genetic. That means that many people in the same family might get a certain kind of cancer. Cancers linked to family history often start earlier than 50 years of age.

People with a family history of cancer can take action to reduce their risk. They can also start screening earlier in life to find cancer sooner.

## Treatments

Every cancer has a different treatment that works best. These are the main types of treatments available right now. Each treatment is planned by a doctor to treat a specific cancer.

Sometimes 2 types of treatment are used together.



### Surgery

Some or all of a tumor is removed from the body. The tumor is cut away from the healthy tissue.

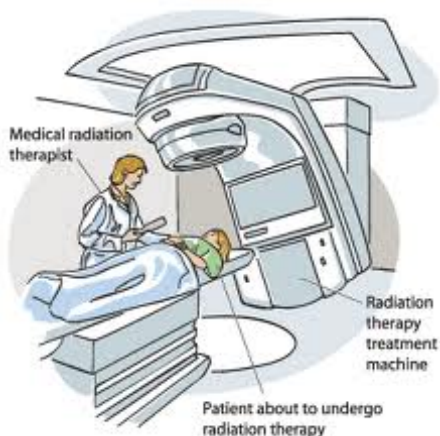
### Chemotherapy – “Chemo”

Kee-mo-ther-a-pee

Medications are given that kill cancer cells. They help stop cancer cells from making copies. Tumors get smaller.

Blood cancers can only be treated with chemotherapy.

Chemotherapy drugs move through the whole body. Healthy cells also get hurt. This is why people get side effects. They can feel sick all the time or lose their hair



### Radiation

Energy (radiation) is used to destroy cancer cells. The radiation stops the cells from making copies.

Radiation can hurt the healthy cells next to the cancer cells. Luckily, healthy cells can usually fix themselves. Radiation treatments are getting better at only hurting cancer cells.

## Screening

Cancer is easier to treat if it is found before it spreads to other parts of the body.

Screening includes tests or checks that can be done to find cancer before a person gets sick. Screening only works for some cancers. The Cancer Society has guidelines to help doctors and patients know when to start screening for certain cancers. People with risk factors for a certain cancer may start screening earlier.

Warning! Screening is not perfect. Sometimes people have “false negatives” or “false positives.”

False positive – Screening finds a cancer that is not actually cancer.

False negative – Screening misses finding cancer that is in the body.

### Breast Cancer

Guidelines for breast cancer screening are changing right now.

Women 50-69 years old should get a mammogram every 2 years.

Women older than 69 can talk to their doctor about the best screening plan.

All women can do their own self-exams. A woman feels her breasts to find lumps. Family doctors will also feel the breasts during check-ups or if a woman finds a lump. Most breast lumps are *not* cancer. Lumps in younger women are usually benign tumors or cysts.



All breast lumps should be checked 3 ways:  
by self-exam, by health care provider exam  
and by mammography

### Mammogram

Maam-o-gram

A mammogram is a special x-ray for the breast.

Each breast is put between 2 plates and flattened. The x-ray is then taken.

Tumors can be seen on x-rays as a white mark.

## Prostate Cancer

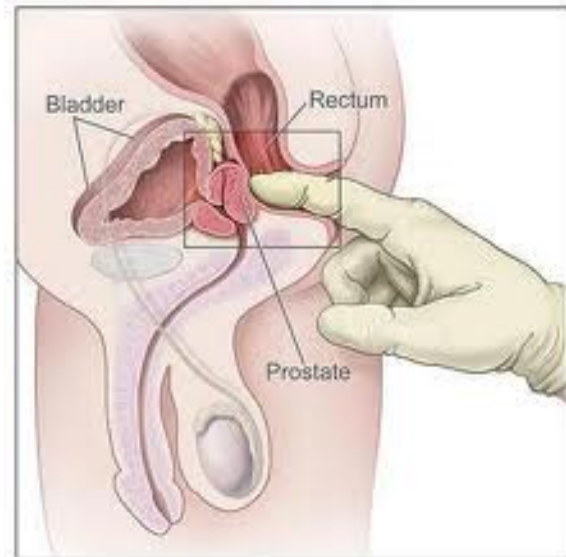
Men have a prostate gland. It sits below the bladder. When men get older, the prostate can get bigger (enlarged). Enlarged prostate glands can make peeing difficult.

An enlarged prostate gland can be benign or cancer.

Not every man needs to get screened for prostate cancer. Talk with your doctor about screening if:

- You are older than 50
- You have a family history of prostate cancer
- You have signs and symptoms of prostate cancer

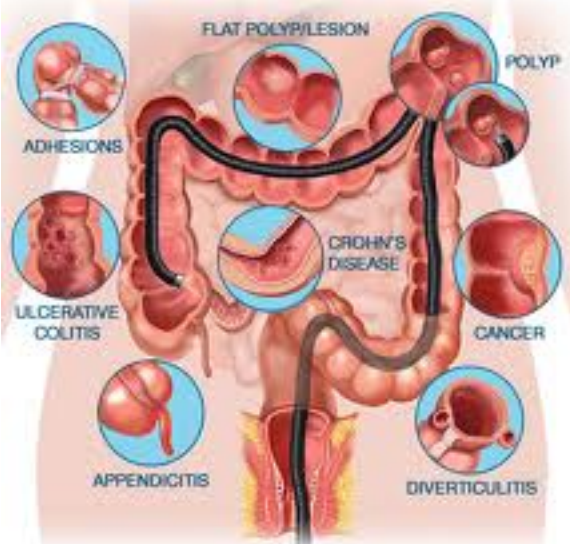
If screened, your doctor will do a **digital rectal exam** and order a **PSA blood test**



## Signs and Symptoms of Prostate Cancer

- Need to pee often
- Hard to start or stop peeing
- Cannot pee
- Bladder does not feel empty after peeing
- Blood in pee or semen
- Painful ejaculation

## The COLONOSCOPY



## Colorectal Cancer

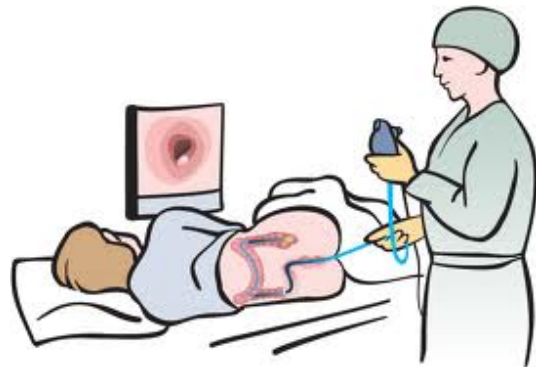
People with an average risk of this type of cancer should get screened every 2 years after age 50. Your doctor will order a **fecal occult blood test**. Your feces (poo) is checked for blood that you cannot see.

If the fecal occult blood test is positive, your doctor will order a colonoscopy.

### Colonoscopy

Ko-lohn-o-sko-pee

A long flexible camera is inserted through your anus. The camera lets the doctor see the inside of your colon to look for cancer.



People that have a high risk of colon cancer should talk to their doctor about the screening that is best for them.

People at high risk may have:

- family history of colon cancer
- colon diseases such as ulcerative colitis or Crohn's disease
- benign polyps of the colon

### Cervical Cancer

Cancer of the **cervix** (sir-viks), is usually caused by the HPV virus. HPV is spread through sexual contact.

Women should be screened for cervical cancer every 1-3 years. The PAP test is used to look for cancer of the cervix. The doctor uses a tiny brush to take cells from the cervix. The cells are then checked to see if they are abnormal.

