

# 3 KEYS TO A Healthier "U"

## SLEEP, PHYSICAL ACTIVITY AND HEALTHY EATING

Being physically active, eating a healthy and balanced diet and getting adequate amounts of sleep are essential to long-term health and wellbeing. Sleep is required for the body to heal after all it has endured during the day, a healthy and balanced diet is needed to fuel the body, and regular physical activity is essential to burn off any unnecessary fats and sugars and keep our organs, muscles and bones strong.

### SLEEP

When we sleep, the body rests and heals itself so we are ready for the challenges of the next day. Studies have revealed that individuals who consistently do not get enough sleep are at an increased risk of developing chronic diseases, including type 2 diabetes, obesity and high blood pressure.

While we sleep, our bodies secrete hormones that help control appetite, metabolism and processing of glucose. Not getting enough sleep is associated with increased production of cortisol (stress hormone), increased secretion of insulin following a meal, lower levels of leptin (hormone that alerts the brain that it has enough food) and higher levels of ghrelin (biochemical that stimulates appetite). This, along with lack of exercise, can increase the risk of type 2 diabetes and obesity.

Insufficient sleep has also been correlated with the elevation of blood pressure. Over time, chronic elevation of blood pressure (hypertension) becomes a key risk factor for cardiovascular disease and stroke.

Treating sleep as a priority rather than a luxury can help us prevent these conditions as well as enhance our mental wellbeing.

### PHYSICAL ACTIVITY

Regular physical activity is one of the keys to our health and wellbeing. Studies have shown that moderate-intensity aerobic activity such as brisk walking can improve our overall level of health. Being physically active can:

- Help manage your weight
- Reduce the risk of cardiovascular disease
- Reduce the risk of type 2 diabetes and metabolic syndrome
- Reduce risks of some cancers
- Strengthen bones and muscles
- Improve mental health and mood

By engaging in physical activity we are strengthening and cleansing our internal body. Regular exercise aids with blood sugar regulation and metabolism. It also prevents plaque from forming in the arteries, which allows the blood pressure to remain at a normal level.

### A few simple tips to have a good night's sleep:

- Keep a routine
- Avoid napping in the afternoon
- Don't drink caffeine after 2:00 pm
- Avoid screen time 2 hours before bed
- Keep your room as dark as possible and at a pleasant temperature (60 – 67 degrees Fahrenheit)

### Physical Activity Guidelines (adults 18-64 years old)

- Accumulate at least 150 minutes of moderate to vigorous intensity aerobic activity per week, in bouts of 10 minutes or more (brisk walking, biking, jogging).
- Add muscle and bone-strengthening activities using major muscle groups at least 2 days per week (exercising with resistance bands, dumbbells, body weight).

More daily physical activity provides greater benefits.

Source:

<https://www.participaction.com>



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## HEALTHY EATING

A healthy and well-balanced diet can provide your body with the energy needed to be active throughout the day and the nutrients required for growth and repair, helping you to stay strong and healthy.

The foods that we eat and our eating habits are key for the prevention and treatment of many chronic diseases. People who eat more fruits and vegetables, whole grains, unsaturated fats, less salt and sugar are at a lower risk of developing:

- Type 2 diabetes
- Obesity
- High blood pressure and high cholesterol
- Breast, prostate and colorectal cancers
- Heart disease

Healthy eating is also key in treating these diseases when they develop.

When we consume foods that are high in fat and cholesterol, it is hard for our body to break them down, and the fat begins to accumulate, which can lead to weight gain and obesity. The fat left behind can also amass in the arteries, thus putting more strain on the heart and raising the blood pressure.

When we eat a high portion of foods that are high in sugar, the pancreas is forced to work harder to decrease the levels of sugar in our blood, consequently increasing the chances of developing type 2 diabetes.

### 5 Tips for Healthy Eating

1. Go for whole grains
2. Load up on fruits and vegetables
3. Make your day with milk products
4. Go lean
5. Choose healthier fats

Source: 2013 Dietitians of Canada  
<https://www.dietitians.ca>

Eating well, being active and getting enough quality sleep are key for leading a healthy life. For more information visit the Three Keys to a Healthier "U" website at [uwindsor.ca/3keys](http://uwindsor.ca/3keys)



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## SLEEP KEY

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Co-ordinated by the Department of Human Resources

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## THE IMPORTANCE OF SLEEP

Sleep is a key indicator of overall health and wellbeing. Getting a good night's sleep is as important to your overall level of health as proper nutrition and being physically active. Getting the proper amount and quality of sleep not only improves our health, but also our focus, decision-making and problem solving ability.

As we drift off to sleep, our brain sends signals to the muscles to repair themselves and to tissues to heal. It is also synthesizing hormones throughout the body, boosting the immune system and recharging the heart and cardiovascular system for the next day.

When our body does not get the opportunity to repair itself and recharge through proper sleep, we may feel moody, struggle to stay focused and remember information, and put ourselves at an increased risk of developing chronic diseases. The chart below provides an overview of how sleep is related to the risk of developing obesity, type 2 diabetes and high blood pressure, which are among the top but preventable chronic diseases in our region (Community Picture, 2011).

Chronic Disease	The Link Between Sleep and Chronic Disease
Obesity	When we sleep, the brain controls the release of ghrelin (the biochemical that stimulates appetite). When we do not get enough sleep, our brain becomes confused and begins sending too much ghrelin to the stomach, tricking us into thinking that we are hungry. This can increase our appetite and cravings for carbohydrates and sugary foods. Lack of sleep can also lead to feeling tired and therefore less inclined to be physically active. Inactivity combined with overeating over a period of time can contribute to weight gain and obesity.
Diabetes	Insulin is the hormone that regulates blood sugar. When we do not get enough sleep on a regular basis, our body releases less insulin and secretes more stress hormones. Increased levels of stress hormones make it harder for insulin to do what it needs to do. As a result, more glucose (the simple sugar that our body produces) stays in the bloodstream, which increases the risk of developing type 2 diabetes.
High Blood Pressure	Studies have shown that when we sleep five hours or less per day we may be at a higher risk of developing or worsening high blood pressure ("Sleep and High Blood Pressure", 2013). Sleep helps our blood regulate stress hormones. Over time, lack of sleep can affect our body's ability to control these hormones, making it work harder, pumping more blood, and increasing the blood pressure. High blood pressure can lead to a number of other health conditions.



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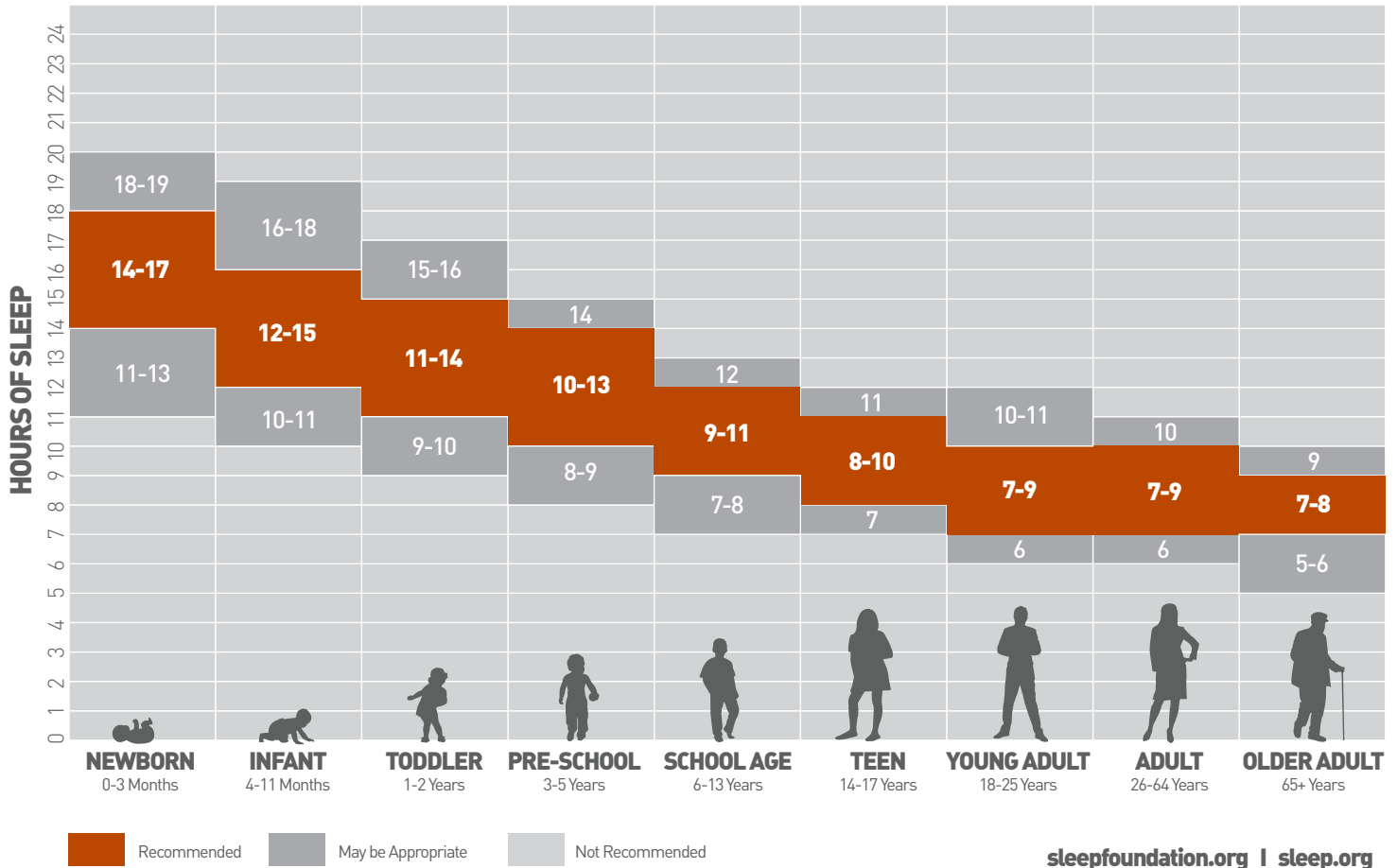
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### HOW MANY HOURS OF SLEEP DO WE REALLY NEED?

The amount of sleep required differs from individual to individual. The number of hours recommended depends on factors such as age, lifestyle and health. The National Sleep Foundation has established sleep duration recommendations. Once you determine the sleep duration recommendations for your age group you should examine what lifestyle factors (examples: physical activity, work schedules, stress, travel) are affecting the quality and quantity of your sleep.

#### Sleep Duration Recommendations



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HELPFUL TIPS FOR A QUALITY NIGHT'S SLEEP:  
IMPROVING YOUR SLEEP HYGIENE

Sleep hygiene is the variety of habits, practices and routines that are necessary in order to have a good quality sleep at night and to achieve full wakefulness during the day.

### SLEEP ENVIRONMENT

The environment that we sleep in can determine whether we will have a good night's rest. Being comfortable allows our body to fully shutdown, without external factors keeping us awake. The following are examples of factors that can be controlled to promote better sleep hygiene:

Light	<ul style="list-style-type: none"><li>• Keep your room as dark as possible; use dark curtains</li><li>• Avoid blinking lights on devices</li><li>• Turn the television off</li></ul>
Noise	<ul style="list-style-type: none"><li>• Keep your room quiet</li><li>• Avoid falling asleep to the television</li><li>• Put phones on silent</li><li>• "White noise" machines or fans can be helpful as they produce soothing sound</li></ul>
Temperature	Keep your bedroom at a comfortable, cool temperature. Adjust room temperature as outdoor temperatures change. The National Sleep Foundation recommends a temperature between 60 and 67 degrees Fahrenheit (approximately 16 – 19 degrees Celsius)

### SLEEP ROUTINE

Being consistent with the time we go to bed and the time we get up helps our body learn when it should start getting ready for sleep, and when it should begin to wake up. To maintain a healthy sleep routine:

- Aim at going to bed at the same time every night, and wake up at the same time each morning, even on the weekends
- Set alarms in the morning to wake up and at night to go to bed
- Practice the same night-time rituals to help de-stress (e.g. reading, taking a warm bath, listening to calming music)

### BLUE LIGHT

Blue light is the light emitted at a wavelength that our eyes are not used to processing, making them work harder to visualize what is being shown. This light is found most commonly on screens such as LED TVs, computers, smart phones and tablets.

Exposure to blue light during the daytime helps the circadian rhythm by keeping us alert and awake. However, too much blue light in the evening can interfere with our normal rhythms and make it difficult to fall asleep.

### WHAT IS A CIRCADIAN RHYTHM?

The circadian rhythm is the internal 24-hour clock that tells us when we are awake and when we begin to fall asleep. Outside factors such as light and darkness can send signals to this rhythm and tell our body when it should get tired, and when it should start to wake-up. This is why it is very hard for jet-lagged individuals, and shift workers to sleep at the right times.



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To enjoy a restful sleep, avoid disturbances from blue light 2 to 3 hours before bedtime (“Blue Light Has a Dark Side”, 2017) by:

- keeping the television out of the bedroom
- turning off the cell phone before bed
- avoiding using electronic/mobile devices before bed
- reading actual books, not kindle devices
- turning off laptops, or keeping them out of the bedroom

### FOOD AND DRINKS

Foods and drinks that are high in sugar, caffeine or contain alcohol act as stimulants. Consuming such foods and drinks before bed can disrupt the sleep cycle. On the other hand, foods that contain a chemical called tryptophan can help us sleep. The chart below provides some examples of what to avoid before bed, light snacks to eat and foods that are high in tryptophan.

Avoid before bed	Light snacks	Foods high in tryptophan
Alcohol	Cereal	Chickpeas or hummus
Caffeine	Crackers	Eggs
Fatty food	Herbal teas – non caffeinated	Kale
Foods high in sugar	Honey	Lettuce
Fried foods	Nuts	Shrimp
Spicy foods	Peanut butter	Turkey
		Tuna

### OTHER TIPS:

- Limit daylight naps to 30 minutes or less. Napping does not make up for lack of nighttime sleep but a short nap can help improve mood, alertness and performance. Avoid night naps, as they will affect your ability to sleep.
- Exercise to help promote good quality sleep. Studies have shown that as little as 10 minutes of aerobic activity such as walking can improve sleep quality. Avoid intense exercise close to bedtime as high intensity workouts waken your body and pump adrenaline through your system, which would be counter-productive before you go to sleep. Instead, focus on exercises that help stretch out tight muscles, and deep breathing to help lower the heart rate and stress levels.
- Get adequate exposure to natural light both during the day and night (helps regulate the sleep-wake cycle)

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## PHYSICAL ACTIVITY FOR HEALTH

Physical activity can significantly improve our health. By being physically active, we are strengthening our muscles, as well as burning calories. This in turn improves metabolism and blood circulation. A stronger metabolism helps the body process nutrients and maintains a healthy balance of bodily substances. Strong blood circulation helps to reduce strain on the heart, allowing other organs to function properly and efficiently.

By increasing physical activity in our everyday life, we can greatly reduce the risk of developing chronic diseases.

**Inactivity is related to 9% of premature deaths around the world (Lee et al., 2012).**

### PHYSICAL ACTIVITY AND CHRONIC DISEASE

Leading an active lifestyle can have a positive long term effect on our health. Engaging in daily physical activity can help reduce the risk of becoming obese, suffering from high blood pressure, and developing type 2 diabetes. Below is a description of how being active can prevent these chronic diseases:

#### Obesity

Moving our muscles triggers the biological process that helps break down fats and sugars. Without these processes, sugar is turned into fat, which starts to build up around the organs. The excess weight puts more strain on the joints, muscles, and cardiovascular system.

Obesity can lead to:

- Arthritis
- Breathing problems
- Chronic pain
- Decreased circulation
- Heart disease
- High cholesterol
- Mental illness- specifically depression
- Stroke

#### High Blood Pressure

Physical activity, low or high intensity, increases the heart rate. The higher the heart rate, the harder our heart has to pump to make sure that all the tissues receive enough blood and oxygen. This is known as blood pressure. When we exercise regularly, our heart becomes stronger and requires less force to get the blood circulated around the body. Therefore, routinely engaging in physical activity can help to lower the blood pressure. Having good blood circulation also reduces the risk of clotting, which can lead to a heart attack or a stroke. Exercise breaks down fats and prevents plaque build-up in the arteries, which can also lead to heart complications such as aneurysms and angina, as well as cognitive impairments and kidney failure.



## Diabetes

When we exercise we are also decreasing the risk of developing type 2 diabetes. Physical activity causes muscles to absorb glucose out of the blood, thus lowering the blood sugar. When we maintain blood sugar at a lower level, the pancreas does not have to release large amounts of insulin, the chemical that is responsible for lowering the blood sugar. Physical activity after eating meals is particularly effective, as it will lower your post-meal glucose levels. To reduce the risk of type 2 diabetes, it is important to maintain a healthy blood sugar level.

Diabetes can lead to many other negative long-term health consequences including:

- Eye damage
- High blood pressure
- Kidney disease
- Mental illness – e.g. depression, anxiety
- Nerve damage
- Stroke

## HOW MUCH PHYSICAL ACTIVITY DO WE NEED TO DO EVERY DAY/WEEK?

The amount of physical activity we need varies greatly for each individual based on weight, health status, age, and personal fitness goals.

The Canadian Physical Activity Guidelines recommend the following amount of activity for 18-64 year olds:

- Minimum of 30 minutes of activity every day (for example, walking or taking the stairs)
- Minimum of 150 minutes of moderate to vigorous activity per week
- Strength training for all muscle groups at least twice a week (12 – 15 repetitions are recommended)

**Moderate activity** is described by breathing a little harder, and starting to sweat. Examples: speed walking, bike riding, roller blading.

**Vigorous activity** is described by being out of breath, and sweating. Examples: jogging, jumping, swimming laps, playing sports.

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## PHYSICAL ACTIVITY MYTHS

Physical activity can significantly improve your health. There are many myths associated with being active and when we believe these myths, it can be much harder to stick to our physical activity goals. The following table developed by Health Links BC demystifies some of the most common misconceptions surrounding physical activity:

MYTH	TRUTH
Someone who is thin is fit.	Being fit means that you have a strong and healthy heart, lungs, muscles, bones and joints. Just because someone is thin or at a normal weight does not mean he or she can run a long distance or open a heavy door. Regular physical activity and balanced eating can help you stay at a healthy weight and prevent disease.
People do not meet their activity goals because they do not keep at it.	You may have chosen a goal that is unrealistic. Even highly motivated people do not always meet their goals. However, don't give up. Set a new goal that is more reachable and realistic. Then work up to it by achieving smaller goals along the way.
Jogging is a better activity than walking.	Walking is an excellent way to get a stronger heart and lungs, and reduce your risk of disease. The important thing is to do an activity you enjoy, whether it is jogging, walking or something else. Aim to be active for at least 30 minutes on 5 or more days of the week. You do not have to do all 30 minutes at once. If it is easier or more convenient, do several 10-minute sessions throughout the day.
There is one best way to be physically active.	There are many types of physical activity that are enjoyable and beneficial for your health. Keep trying new things and have fun. The 3 types of activities that promote overall health are: <ul style="list-style-type: none"> <li>• Activities for strong, healthy muscles and bones, like lifting weights.</li> <li>• Activities for healthy joints and muscles, like yoga and stretching.</li> <li>• Activities for a stronger heart and lungs, like walking or biking.</li> </ul>
No pain, no gain.	Muscle soreness, minor aches, and breathing harder are a normal part of becoming more active. However, sharp pain is not. Start slowly and progress gradually to avoid injury. By avoiding pain, you will make better progress.
Lifting weights makes you gain weight and bulk up.	Fat cells get bigger when you are not active and smaller when you are more active. You will not get bulky muscles if you lift weights 3 times a week and use a higher number of repetitions with a lighter weight. Just remember, fat does not turn into muscle, and muscle does not turn into fat.

Source (with minor modifications): <https://www.healthlinkbc.ca/physical-activity/myths>

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## SEDENTARY LIFESTYLE HEALTH RISKS

Sitting has become an unavoidable part of life for most of us. We sit when we eat our meals, at work behind the desk, in the car on the way to the grocery store and curled up with a bowl of pop-corn on the sofa watching a favourite movie. An hour here and an hour there can add up to nearly 10 hours of sitting per day (Canadian Cancer Society). Becoming more aware of the amount of sedentary time in our day and looking for opportunities to be more active throughout the day can significantly improve our overall health.

### WHAT IS A SEDENTARY LIFESTYLE?

Sedentary lifestyle implies that a person spends a large portion of their day sitting, reclining or lying down engaged in a variety of activities with low energy expenditure, such as using a computer or watching TV. The table below provides an example of what a sedentary lifestyle might look like.

A DAY IN THE LIFE OF A PERSON WHO LEADS A SEDENTARY LIFESTYLE	
ACTIVITY	TIME SPENT
Eat breakfast	½ hour
Drive to work	½ hour
Morning at work (in an office environment)	3 hours sitting (with some activities such as going to the printer, getting a coffee, walking to and from a meeting)
Eat lunch	½ hour
Afternoon at work (in an office environment)	3 hours (walk to and from a few meetings but then sit at the meetings)
Drive home	½ hour
Sit down for dinner	½ hour
Watch TV/read/socialize in the evening	2.5 hours
Total time spent seating	11 hours (approximately 45 % of your day)

### HOW IS YOUR PHYSICAL HEALTH AFFECTED?

Leading a sedentary lifestyle has implications for the physical and mental health.

#### Physical Health

Tendency towards sedentary behaviours has been proven to correlate with increased risks of developing chronic diseases which could reduce the quality of life and shorten lifespan.

The following health conditions are connected with sedentary behaviour:

- Back pain
- Cancer
- Circulatory disorders
- Diabetes
- Low metabolism
- Muscle degeneration
- Organ damage
- Posture problems
- Varicose veins



## Mental health

Studies show that individuals who lead a sedentary lifestyle experience more negative impacts on their mental health than those who do not (Teychenne, M., Ball, K., Salmon, J., 2010). Lack of movement throughout the day leads to greater odds of developing depression, anxiety disorders and can cause an earlier onset of dementia. Sitting for prolonged periods of time greatly reduces blood flow to the brain thus reducing the mental acuity, which makes us less productive and stops the brain from releasing the chemical dopamine, which helps us stay happy throughout the day. All it takes is a 30-minute walk in your workday to help get your brain functioning the way it is meant to.

Researchers have found that 9% (or 5 million) of premature deaths worldwide per year are caused by inactivity. Physical inactivity/sedentary behaviour is the fourth leading cause of death worldwide (The Lancet, 2012).

## BENEFITS OF DECREASING SEDENTARY TIME

Incorporating more activity into your day can lead to an increased energy level throughout the day, better sleep at night, less aches and pains, more flexibility in your joints and higher levels of concentration. There are also long term benefits of being active, such as: the production of healthier blood sugars and a faster metabolism. As you become less sedentary, the risk for cancer decreases as well.

## Simple Tips For Reducing Sedentary Time and Adding More Physical Activity Into Your Day

It only takes small changes to your regular daily routine to reduce the amount of time you spend sitting or lying down. The following are some tips for adding more physical activity into your day.

AT WORK	AT HOME
Take booster breaks such as stretching, jogging on the spot, or a brief walk inside or outside your office	Prepare your food standing up
Answer phone calls standing up to get your blood flowing	Take your dog (if you have one) for a walk two times per day or go for a walk with a friend/family
Take the stairs whenever possible rather than taking the elevator	Stand up while doing things such as folding laundry or surfing the web
Walk to a colleagues' desk or office rather than using the phone, email or messaging	Opt for washing your car yourself rather than taking it to a carwash
Go for a walk at lunch time	When watching TV, incorporate some activity during commercial breaks such as jumping jacks or jogging on the spot.
Send your printing job to a printer/copier farther from your desk	Stand to read the paper or whenever you are on your phone

## OTHER TIPS:

- Park your car farther from the location where you need to be and walk to your destination
- Walk or bike to nearby places such as grocery stores or coffee shops
- Program your smartphone to remind you to stand up and move
- Use a pedometer to track the number of steps you have taken during the day. Try setting a weekly goal and adjust it once it is reached. Keep record to see your progress.
- You can also use a smartwatch to track steps, monitor your heart rate, set goals, workout reminders and listen to motivational music to keep you moving.

A simple reminder to stand, or even better, a little activity added to your daily routine on a regular basis, can make you healthier, more productive and, as some studies conclude, add few years to your life (National Cancer Institute, 2012).

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**HEALTHY EATING TIPS**

A healthy and well-balanced diet can provide your body with the energy you need to be active throughout the day and the nutrients needed for growth and repair, helping you to stay strong and healthy. The foods we eat and our eating habits are key for the prevention and treatment of many chronic diseases including heart disease, stroke, type 2 diabetes and some cancers. A healthy and well balanced diet can also help you reach and maintain a healthy weight.

Follow the guidelines below from Dietitians of Canada to help you eat well.

GUIDELINE	QUICK TIPS
<p><b>Go for Whole Grains</b>                      Make at least half of your grain choices whole grains. Examples of whole grains are whole grain wheat, whole oats or oatmeal, pot barley and bulgur. Whole grains are higher in vitamins, minerals and phytonutrients (natural plant compounds) than refined grains. Research shows that a diet rich in whole grains is heart healthy.</p>	<ul style="list-style-type: none"> <li>• Start your day with a bowl of whole grain cereal</li> <li>• Make sandwiches with whole grain bread or rolls</li> <li>• Add barley, lentils, kidney beans or brown rice to soups and stews</li> <li>• Substitute whole-wheat flour for all or part of the white flour when baking</li> <li>• Choose whole-grain crackers</li> <li>• Use whole grain pasta</li> </ul>
<p><b>Load Up on Vegetables and Fruit</b>                      Vegetables and fruit are packed with nutrients and fiber, so enjoy a wide variety of them. Try to include at least one dark green and one orange veggie daily.</p>	<ul style="list-style-type: none"> <li>• Try a new vegetable or fruit each week</li> <li>• Sprinkle some berries over whole grain cereal at breakfast</li> <li>• Pack a couple pieces of fruit and some raw veggies with your lunch</li> <li>• Start dinner with a salad of dark greens like spinach or romaine lettuce</li> <li>• Fill half your plate with vegetables at dinner</li> <li>• Add a handful of spinach or kale to a fruit smoothie</li> </ul>
<p><b>Make Your Day with Milk Products</b>                      Milk products are packed with protein, calcium and B vitamins. And they're delicious! Enjoy 500mL (2 cups) of milk or fortified soy beverage every day for bone-boosting vitamin D.</p>	<ul style="list-style-type: none"> <li>• Add milk to soups, casseroles and other home-prepared dishes</li> <li>• Add defrosted frozen raspberries to plain low fat Greek yogurt for a tasty breakfast</li> <li>• Bring a few small cheese cubes along with whole grain crackers to work for a quick snack</li> <li>• Have a frothy latte instead of a cup of coffee for your morning break</li> <li>• Enjoy a small bowl of whole grain cereal with milk as an after dinner snack</li> </ul>



GUIDELINE	QUICK TIPS
<p><b>Go Lean &amp; Alternative</b> Meat and meat alternatives are a good source of protein, iron, zinc and other nutrients. Make lean choices and prepare them with little or no added fat. Enjoy alternatives like legumes (kidney beans, chick peas and lentils) and tofu often.</p>	<ul style="list-style-type: none"> <li>• Bake, roast or poach meat, fish and poultry</li> <li>• Enjoy at least two servings a week of fatty fish like salmon, trout and mackerel</li> <li>• Try meatless meals such as lentils with rice, omelets, or tofu burgers</li> <li>• Keep boiled eggs in the fridge for handy, quick snacks</li> <li>• Sprinkle seeds on stir-frys and salads or enjoy a handful of nuts for a protein-filled snack</li> </ul>
<p><b>Choose Healthier Fats</b> Fats and oils add a lot of flavour to food, and they help us absorb some nutrients. But diets higher in unhealthy fats are also linked to health risks such as heart disease. Enjoy a small amount – 30 to 45 mL (2 to 3 Tbsp.) – of healthier unsaturated fat each day. Limit saturated and trans fats.  Healthier unsaturated fats come from foods such as avocados, nuts and seeds as well as oils such as olive, canola, flaxseed or nuts.</p>	<ul style="list-style-type: none"> <li>• Reduce the oil and add a splash of flavoured vinegar or fresh lemon juice to salad dressings</li> <li>• Try a little mashed avocado on sandwiches instead of butter or mayonnaise</li> <li>• Use herbs and spices to season your food without fat</li> <li>• Use small amounts of vegetable oils, such as canola or olive oil instead of butter for stir-frying or sautéing</li> <li>• Nibble on a small handful of almonds or walnuts with a piece of fruit for a simple snack</li> </ul>

Source: Reproduced from <https://www.dietitians.ca/Your-Health/Nutrition-A-Z/Healthy-Eating/implementing-healthy-eating-tips-based-on-Canada%E2%80%99s-Food-G.aspx>

When following these guidelines, pay attention to serving sizes. Information on suggested serving sizes is available through the Dietitians of Canada or Canada’s Food Guide website.

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## THE IMPORTANCE OF A BALANCED DIET

In the world of fast food and snacking, it is important to remember that we are what we eat. Our food choices today have an astounding effect on our health tomorrow and, therefore, we need to be more conscious about what we put into our body. Not only does what we put on our plate fuels our bodies, but also impacts our mood, behaviour, and physical and mental health. According to the Heart & Stroke Foundation of Canada (2018), 80 percent of premature heart disease as well as strokes can be prevented by making healthy eating choices. It is important to ensure that our diet is well balanced and that we eat in moderation.

### WHAT IS A BALANCED DIET?

An easy way to tell if we are eating a balanced diet is to determine how many food groups are represented in our meals throughout the day. A balanced diet should include at least one serving of each of the following four food groups: fruits and vegetables, grains, dairy, and protein. However, it is important not to rely on one or two food groups only and may be beneficial to keep a diary of what you eat daily so you can see what food groups you may need to incorporate. A balanced diet is not only about including the right kinds of food in our meals; it also involves:

- Consuming recommended amount of food from the four groups
- Decreasing the amount of beverages that contain high levels of sugar
- Skipping high sodium dishes
- Reading food labels carefully
- Keeping hydrated

### WHY IS A BALANCED DIET IMPORTANT?

A healthy and well-balanced diet can provide our body with the energy it needs to stay active throughout the day. It also supplies the nutrients required for growth and repair, helping us remain strong and healthy.

The foods we eat and our eating habits are key for the prevention and treatment of many chronic diseases. People who eat more fruits and vegetables, whole grains, unsaturated fats, less salt and sugar are at a lower risk of developing:

- Type 2 diabetes
- Obesity
- High blood pressure and high cholesterol
- Breast, prostate and colorectal cancers
- Heart disease

When we consume foods that are high in fat and cholesterol, it is hard for our body to break them down, and the fat begins to accumulate, which can lead to weight gain and obesity. The fat left behind can also amass in the arteries, thus putting more strain on the heart and raising the blood pressure. When we eat foods that are high in sugar, the pancreas is forced to work harder to decrease the levels of sugar in our blood, consequently increasing the chances of developing type 2 diabetes.

### WHAT ARE THE HEALTH BENEFITS OF A BALANCED DIET?

A balanced diet should contain at least one serving from each of the four food groups. Each of these food groups provides our body with different nutrients and benefits.



FOOD GROUP	ASSOCIATED HEALTH BENEFITS
<b>Fruits &amp; Vegetables</b> (examples: apples, bananas, oranges, pears, apricot, kiwi, brussels sprouts, cabbages, cauliflower, kale, lettuce, spinach, potatoes, etc.)	<ul style="list-style-type: none"> <li>• Low in calories, high in fiber and water. Make you feel more full, reducing the risk of overeating. The fiber helps your digestive system function and also reduces the risk of colorectal cancers.</li> <li>• Contain many vitamins such as C, E and A which are essential for healthy skin, hair and a strong immune system.</li> <li>• Magnesium and potassium can be found in most fruits which help to lower blood pressure.</li> <li>• Broccoli, cauliflower, cabbage, Asian greens and tomatoes are particularly high in vitamin C. Green vegetables provide folic acid to help with cell division while cruciferous vegetables such as broccoli and cauliflower help to reduce the risk of cancer.</li> </ul>
<b>Grains</b> (examples: whole grain breads, breakfast cereals, rice, corn, pasta, couscous, etc.)	<ul style="list-style-type: none"> <li>• The nutrients provided by grains include carbohydrates that your body uses for energy, protein required to keep our muscles and organs strong, and fiber to aid in the digestive function.</li> <li>• The high fiber content also helps prevent constipation.</li> <li>• Grains contain a wide range of vitamins and minerals including B vitamins, thiamin, riboflavin, niacin, iron, vitamin E, zinc, magnesium and phosphorus.</li> <li>• Whole grain foods can help prevent a number of diseases such as cardiovascular disease, colon cancer, diabetes and diverticular disease (a digestive condition).</li> </ul>
<b>Lean meat and alternatives</b> (examples: fish, legumes, tofu, poultry, nuts, etc.)	<ul style="list-style-type: none"> <li>• This food group provides the most protein, which is the building block of many of our body's processes.</li> <li>• Protein is needed to produce enzymes, hormones, and other body chemicals. It is responsible for the health of our bones, muscles, cartilage, skin, and blood.</li> <li>• Eating fish twice a week can prevent an early onset of dementia, decrease the risk for stroke, heart disease, and age related eyesight conditions.</li> </ul>
<b>Dairy and alternatives</b> (examples: cream, milks, yogurts, cheese, soy/rice drinks, buttermilk, etc.)	<ul style="list-style-type: none"> <li>• Dairy products such as milk, cheese, and yogurt provide the majority of calcium required.</li> <li>• Calcium is the mineral that is necessary for building bones and keeping them healthy. It helps our blood clot, nerves function and muscles contract.</li> <li>• Dairy products also include protein, iodine, vitamin A, vitamin D, riboflavin, vitamin B12 and zinc</li> <li>• Yogurt, milk, and soymilk are high in potassium, which may help maintain our blood pressure at a healthy level.</li> </ul>

Use the Canada's Food Guide Website (<https://www.canada.ca/en/health-canada/services/food-nutrition/canada-food-guide/get-your-copy.html>) to help you determine how much of each food group you should consume daily.

In addition to adding a variety of food groups into your diet, to maintain a balanced diet and healthy weight, you should reduce your consumption of:

- Alcohol
- Refined grains
- Saturated fats
- Salt
- Sugars

Eating well, being active and getting enough quality sleep are key for leading a healthy life. For more information visit the Three Keys to a Healthier "U" website at [uwindsor.ca/3keys](http://uwindsor.ca/3keys)



## 3 KEYS TO A

# Healthier "U"

## RESOURCES

This document lists the sources that were consulted to develop the information sheets that are part of the 3 Keys to a Healthier "U" series. The information sheets that are part of this campaign were written by Faculty of Nursing Students Randy Marcus and Shannon Gregory as part of their 4th year Community Nursing placement with the Department of Human Resources (Fall-Winter 2018) and edited by members of the Workplace Wellness Committee and the Department of Human Resources.

### SLEEP KEY

- <http://healthysleep.med.harvard.edu>
- <http://www.allaboutvision.com/cvs/blue-light.htm>
- <https://www.healthline.com/health/sleep-disorders-prevention>
- <https://sleepfoundation.org/sleep-disorders-problems-list/the-link-between-lack-sleep-and-type-2-diabetes>
- <https://sleepfoundation.org/sleep-tools-tips/healthy-sleep-tips>
- <https://sleepfoundation.org/sleep-topics/sleep-hygiene/page/0/1>
- <https://www.everydayhealth.com/columns/robert-rosenberg-sleep-answers/sleep-and-high-blood-pressure>
- <https://www.health.harvard.edu/staying-healthy/blue-light-has-a-dark-side>
- <https://www.nhlbi.nih.gov/health/health-topics/topics/sdd/why>
- <https://www.sleepvantage.com.au/sleep-library/the-importance-of-sleep.html>
- Moderie, C., Van der Maren, S., & Dumont, M. (2017). Circadian phase, dynamics of subjective sleepiness and sensitivity to blue light in young adults complaining of a delayed sleep schedule. *Sleep Medicine*, 34, 148-155. <http://dx.doi.org/10.1016/j.sleep.2017.03.021>

### HEALTHY EATING KEY

- <http://healthyeating.sfgate.com/eating-healthy-affect-physical-mental-social-health-6972.html>
- <http://www.heartandstroke.ca/get-healthy>
- <http://www.humankinetics.com/excerpts/excerpts/skipping-meals-can-have-negative-consequences>
- <https://www.canada.ca/en/health-canada/services/canada-food-guides.html>
- <https://www.dietitians.ca/Your-Health/Nutrition-A-Z/Healthy-Eating/imple-healthy-eating-tips-based-on-Canada%E2%80%99s-Food-G.aspx>
- <https://www.hypertension.ca/en/hypertension/what-can-i-do/limit-saltsodium-intake>
- <https://www.helpguide.org/articles/diets/the-diabetes-diet.htm>

- <http://www.heartandstroke.ca/get-healthy/healthy-eating/healthy-eating-basics>
- <https://www.mentalhealth.org.uk/a-to-z/d/diet-and-mental-health>
- <https://www.nhsinform.scot/healthy-living/food-and-nutrition/eating-well/health-benefits-of-eating-well>
- St-Onge, M., Ard, J., Baskin, M. L., Chiuve, S. E., Johnson, H. M., Kris-Etherton, & P., Varady, K. (2017) Meal Timing and Frequency: Implications for Cardiovascular Disease Prevention: A Scientific Statement From the American Heart Association. *AHA Scientific Statement*, 135, e96-e121. DOI: 10.1161/CIR.000000000000047

### PHYSICAL ACTIVITY KEY

- <http://www.cancer.ca/en/prevention-and-screening/reduce-cancer-risk/make-healthy-choices/move-more-sit-less/shocking-how-many-hours-a-day-canadians-sit/?region=on>
- [http://www.csep.ca/CMFiles/Guidelines/CSEP\\_PAGuidelines\\_adults\\_en.pdf](http://www.csep.ca/CMFiles/Guidelines/CSEP_PAGuidelines_adults_en.pdf)
- <http://www.juststand.org/the-facts/>
- <http://www.mayoclinic.org/healthy-lifestyle/adult-health/expert-answers/sitting/faq-20058005>
- <https://www.healthlinkbc.ca/physical-activity/myths>
- <https://www.boystownhospital.org/knowledgeCenter/articles/GeneralHealth/Pages/How-does-Sedentary-Behavior-Impact-Adult-Health.aspx>
- <https://www.cancer.gov/news-events/press-releases/2012/PhysicalActivityLifeExpectancy>
- <https://www.diabetes.ca/diabetes-and-you/complications>
- <https://www.mayoclinic.org/healthy-lifestyle/fitness/expert-answers/exercise/faq-20057916>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4838429/>
- <https://www.participation.com>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3419586/>
- <https://www.betterhealth.vic.gov.au/health/healthyliving/the-dangers-of-sitting>
- Lee, I., Shiroma, E. J., Lobelo, F., Puska, P., Blair, S.N., & Katzmarzyk P.T. (2012). Effect of physical inactivity on major non-communicable diseases worldwide: an analysis of burden of disease and life expectancy. *The Lancet*, 380 (9838), 219-229. [https://dx.doi.org/10.1016%2FS0140-6736\(12\)61031-9](https://dx.doi.org/10.1016%2FS0140-6736(12)61031-9)
- Teychenne, M., Ball, K. & Salmon, J. (2010). Sedentary behavior and depression among adults: A review. *International Journal of Behavioral Medicine*, 17(4), 246-254. <https://doi.org/10.1007/s12529-010-9075-z>

