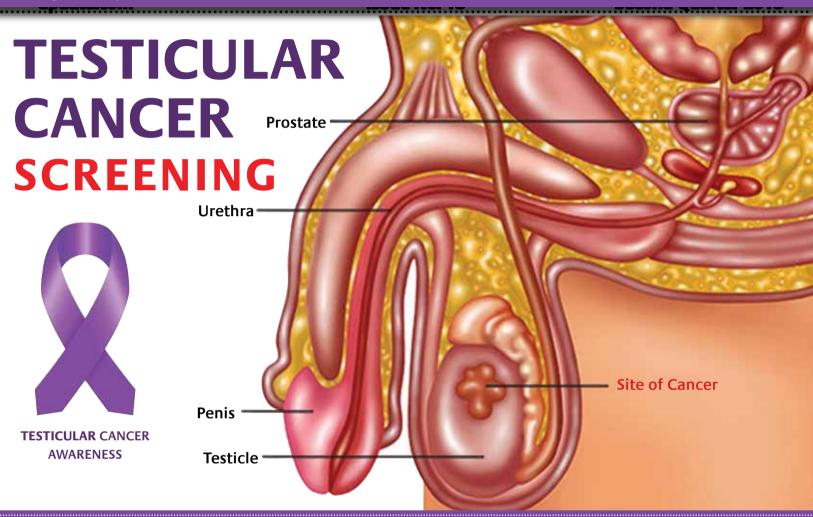
# DIAGNOSTICS

DiagnosticsUpdate.com Issue No: 23 Third Quarter 2019



# TESTICULAR CANCER OCCURS IN THE TESTICLES (TESTES) - Pg 03

OVERVIEW, SYMPTOMS, CAUSES, RISK FACTORS, PREVENTION

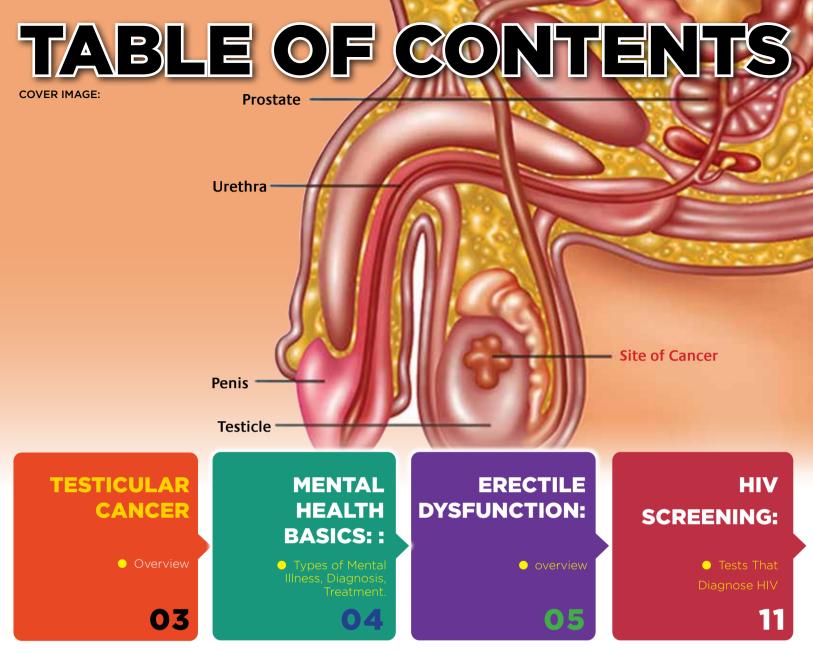
**CERVICAL CANCER** 

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### Dear Reader

ne of the great aspects of this job is having the opportunity to talk with and listen to the many different manufacturers, distributors, and of course the huge network of dealers that is the backbone of our industry.

Years ago I never would have ever imagined I would be in this position, and it is amazing. To say I really enjoy this job is an understatement.

What makes Diagnostics Update.com so unique is their informative and educative ways to the nation.

The staff and management is always looking for ways to inform their readers on how to tackle different medical issues. Basically, you want more people to enjoy reading more and more.

That said, there is still the need to get more readers to embrace healthy routines within and outside the homestead.

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Issue No: 23

to diagnose, treat, cure, or prevent any disease without the supervision of a medical doctor. Please be advised that medical informaiton changes rapidly and new discoveries are being made on a daily basis. Therefore, some information in this publicaiton may have change by the time you read it.

# TESTICULAR CANCER

### Overview

esticular cancer occurs in the testicles (testes), which are located inside the scrotum, a loose bag of skin underneath the penis. The testicles produce male sex hormones and sperm for reproduction.

Compared with other types of cancer, testicular cancer is rare. But testicular cancer is the most common cancer in American males between the ages of 15 and 35.

Testicular cancer is highly treatable, even when cancer has spread beyond the testicle. Depending on the type and stage of testicular cancer, you may receive one of several treatments, or a combination.

### **SYMPTOMS**

Signs and symptoms of testicular cancer include:

- A lump or enlargement in either testicle
- A feeling of heaviness in the scrotum
- A dull ache in the abdomen or groin
- A sudden collection of fluid in the scrotum
- Pain or discomfort in a testicle or the scrotum
- Enlargement or tenderness of the breasts
- Back pain

Cancer usually affects only one testicle.

### WHEN TO SEE A DOCTOR

See your doctor if you detect any pain, swelling or lumps in your testicles or groin area, especially if these signs and symptoms last longer than two weeks.

### **CAUSES**

It's not clear what causes testicular cancer in most cases.

Doctors know that testicular cancer occurs when healthy cells in a testicle become altered. Healthy cells grow and divide in an orderly way to keep your body functioning normally. But sometimes some cells develop abnormalities, causing this growth to get out of control — these cancer cells continue dividing even

when new cells aren't needed. The accumulating cells form a mass in the testicle.

Nearly all testicular cancers begin in the germ cells — the cells in the testicles that produce immature sperm. What causes germ cells to become abnormal and develop into cancer isn't known.

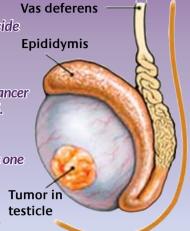
### **RISK FACTORS**

Factors that may increase your risk of testicular cancer include:

• An undescended testicle (cryptorchidism). The testes form in the abdominal area during foetal development and usually descend into the scrotum before birth. Men who have a testicle that never descended are at greater risk of testicular cancer than are men whose testicles descended normally. The risk remains elevated even if the testicle has been surgically relocated to the scrotum.

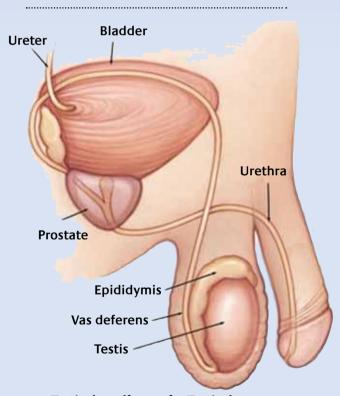
Still, the majority of men who develop testicular cancer don't have a history of undescended testicles.

- Abnormal testicle development. Conditions that cause testicles to develop abnormally, such as Klinefelter syndrome, may increase your risk of testicular cancer.
- Family history. If family members have had testicular cancer, you may have an increased risk.
- Age. Testicular cancer affects teens and younger men, particularly





**Testicular cancer:** • Painless, firm, hard, fixed scrotal mass • Utlrasound • Benta-hCG, LDH, Alpha-fetoprotein



Testicular self exam for Testicular cancer

those between ages 15 and 35. However, it can occur at any age.

 Race. Testicular cancer is more common in white men than in black men.

### **PREVENTION**

There's no way to prevent testicular cancer.

Some doctors recommend regular testicle self-examinations to identify testicular cancer at its earliest stage. But not all doctors agree. Discuss testicular self-examination with your doctor if you're unsure about whether it's right for you.

Source: Mayo Clinic

# **MENTAL HEALTH BASICS:**

TYPES OF MENTAL ILLNESS, DIAGNOSIS, TREATMENT

### What is mental health?

ental health refers to your emotional and psychological well-being. Having good mental health helps you lead a relatively happy and healthy life. It helps you demonstrate resilience and the ability to cope in the face of life's adversities.

Your mental health can be influenced by a variety of factors, including life events or even your genetics.

There are many strategies that can help you establish and keep good mental health. These can include:

- keeping a positive attitude
- staying physically active
- helping other people
- getting enough sleep
- eating a healthy diet
- asking for professional help with your mental health if you need it
- socializing with people whom you enjoy spending time with
- forming and using effective coping skills to deal with your problems

### What is mental illness?

A mental illness is a broad term which encompasses a wide variety of conditions which affect the way you feel and think. It can also affect your ability to get through day-to-day life. Mental illnesses can be influenced by several different factors, including:

- genetics
- environment
- daily habits
- biology

### Mental health statistics

Around one in five young people ages 13 to 18 experience a mental illness at some point in their lives, too.

Although mental illnesses are common, they vary in severity. About one in 25 adults experience a serious mental illness (SMI) each year. A SMI can significantly reduce your ability to carry out daily life. Different groups of people experience SMIs at different rates.

According to the National Institute of Mental Health,

women are more likely to experience SMI than men. Those ages 18 to 25 are most likely to experience an SMI. People with a mixed-race background are also more likely to experience an SMI than people of other ethnicities.

### Mental health disorders

The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) helps mental health professionals diagnose mental illnesses. There are many types of mental health disorders. In fact, almost 300 different conditions are listed in DSM-5.

These are some of the most common mental illnesses affecting people:

### **Bipolar disorder**

Bipolar disorder is a chronic mental illness. It is characterized by episodes of energetic, manic highs and extreme, sometimes depressive lows.

These can affect a person's energy level and ability to think

reasonably. Mood swings caused by bipolar disorder are much more severe than the small ups and downs most people experience on a daily basis.

### Persistent depressive disorder

Persistent depressive disorder is a chronic type of depression. It is also known as dysthymia. While dysthymic depression isn't intense, it can interfere with daily life. People with this condition experience symptoms for at least two years.

### Generalized anxiety disorder

Generalized anxiety disorder (GAD) goes beyond regular everyday anxiety, like being nervous before a presentation. It causes a person to become extremely worried about many things, even when there's little or no reason to worry.

Those with GAD may feel very nervous about getting through the day. They may think things won't ever work in their favor. Sometimes worrying can keep people with GAD from accomplishing everyday tasks and chores.





# **ERECTILE DYSFUNCTION**

### **Overview**

rectile dysfunction (impotence) is the inability to get and keep an erection firm enough for sex.

Having erection trouble from time to time isn't necessarily a cause for concern. If erectile dysfunction is an ongoing issue, however, it can cause stress, affect your self-confidence and contribute to relationship problems. Problems getting or keeping an erection can also be a sign of an underlying health condition that needs treatment and a risk factor for heart disease.

If you're concerned about erectile dysfunction, talk to your doctor — even if you're embarrassed.

Sometimes, treating an underlying condition is enough to reverse erectile dysfunction. In other cases, medications or other direct treatments might be needed.

### **SYMPTOMS**

Erectile dysfunction symptoms might include persistent:

- Trouble getting an erection
- Trouble keeping an erection
- Reduced sexual desire

### WHEN TO SEE A DOCTOR

A family doctor is a good place to start when you have erectile problems. See your doctor if:

- You have concerns about your erections or you're experiencing other sexual problems such as premature or delayed ejaculation
- You have diabetes, heart disease or another known health condition that might be linked to erectile dysfunction
- You have other symptoms along with erectile dysfunction

### **CAUSES**

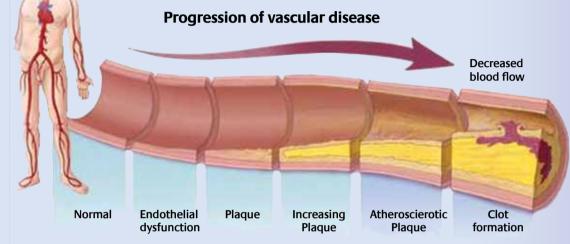
Male sexual arousal is a complex process that involves the brain, hormones, emotions, nerves, muscles and blood vessels. Erectile dysfunction can result from a problem with any of these. Likewise, stress and mental health concerns can cause or worsen erectile dysfunction.

Sometimes a combination of physical and psychological issues causes erectile dysfunction. For instance, a minor physical condition that slows your sexual response might cause anxiety about maintaining an erection. The resulting anxiety can lead to or worsen erectile dysfunction.

### PHYSICAL CAUSES OF ERECTILE DYSFUNCTION

In many cases, erectile dysfunction is caused by something physical. Common causes include:

- Heart disease
- Clogged blood vessels (atherosclerosis)
- High cholesterol
- · High blood pressure
- Diabetes
- Obesity
- Metabolic syndrome a condition



involving increased blood pressure, high insulin levels, body fat around the waist and high cholesterol

- Parkinson's disease
- Multiple sclerosis
- Certain prescription medications
- Tobacco use
- Peyronie's disease development of scar tissue inside the penis
- Alcoholism and other forms of substance abuse
- Sleep disorders
- Treatments for prostate cancer or enlarged prostate
- Surgeries or injuries that affect the pelvic area or spinal cord

# PSYCHOLOGICAL CAUSES OF ERECTILE DYSFUNCTION

The brain plays a key role in triggering the series of physical events that cause an erection, starting with feelings of sexual excitement. A number of things can interfere with sexual feelings and cause or worsen erectile dysfunction. These include:

- Depression, anxiety or other mental health conditions
- Stress
- Relationship problems due to stress, poor communication or

other concerns

### **RISK FACTORS**

As you get older, erections might take longer to develop and might not be as firm. You might need more direct touch to your penis to get and keep an erection.

Various risk factors can contribute to erectile dysfunction, including:

- Medical conditions, particularly diabetes or heart conditions
- Tobacco use, which restricts blood flow to veins and arteries, can — over time — cause chronic health conditions that lead to erectile dysfunction
- Being overweight, especially if you're obese
- Certain medical treatments, such as prostate surgery or radiation treatment for cancer
- Injuries, particularly if they damage the nerves or arteries that control erections
- Medications, including antidepressants, antihistamines and medications to treat high blood pressure, pain or prostate conditions
- Psychological conditions, such as stress, anxiety or depression
- · Drug and alcohol use,

especially if you're a long-term drug user or heavy drinker

### **COMPLICATIONS**

Complications resulting from erectile dysfunction can include:

- An unsatisfactory sex life
- Stress or anxiety
- Embarrassment or low selfesteem
- Relationship problems
- The inability to get your partner pregnant

### **PREVENTION**

The best way to prevent erectile dysfunction is to make healthy lifestyle choices and to manage any existing health conditions. For example:

- Work with your doctor to manage diabetes, heart disease or other chronic health conditions.
- See your doctor for regular checkups and medical screening tests.
- Stop smoking, limit or avoid alcohol, and don't use illegal drugs.
- Exercise regularly.
- Take steps to reduce stress.
- Get help for anxiety, depression or other mental health concerns.

Source: Mayo Clinic

# MENTAL HEALTH BASICS

### **FROM PAGE 04**

### Major depressive disorder

Major depressive disorder (MDD) causes feelings of extreme sadness or hopelessness that lasts for at least two weeks. This condition is also called also called clinical depression.

People with MDD may become so upset about their lives that they think about or try to commit suicide. About 7 percent of Americans experience at least one major depressive episode each year.

### Obsessivecompulsive disorder

Obsessive-compulsive disorder (OCD) causes constant and repetitive thoughts, or obsessions. These thoughts happen with unnecessary and unreasonable desires to carry out certain behaviors, or compulsions.

Many people with OCD realize that their thoughts and actions are unreasonable, yet they cannot stop them. More than 2 percent of Americans are diagnosed with OCD at some point in their lifetime.

### Post-traumatic stress disorder (PTSD)

Post-traumatic stress disorder (PTSD) is a mental illness that's triggered after experiencing or witnessing a traumatic event. Experiences that can cause PTSD can range from extreme events, like war and national disasters, to verbal or physical abuse.

Symptoms of PTSD may include flashbacks or being easily startled.



**Schizophrenia** 

Schizophrenia impairs a person's perception of reality and the world around them. It interferes with their connection to other people. It's a serious condition that needs treatment.

They might experience hallucinations, have delusions, and hear voices. These can potentially put them in a dangerous situation if left untreated.

### Social anxiety disorder

Social anxiety disorder, sometimes called social phobia, causes an extreme fear of social situations. People with social anxiety may become very nervous about being around other people. They may feel like they're being judged.

This can make it hard to meet

people and attend social gatherings.

new

### Coping with mental illnesses

The symptoms of many mental illnesses may get worse if they're left untreated. Reach out for psychological help if you or someone you know may have a mental illness.

If you're unsure where to start, visit your primary care doctor. They can help with the initial diagnosis and provide a referral to a psychiatrist.

It's important to know that you can still have a full and happy life with a mental illness. Working with a therapist and other members of your mental health team will help you learn healthy ways to manage your condition.

### Mental health symptoms

Each type of mental illness causes its own symptoms. But many share some common characteristics.

Common signs of several mental illnesses may include:

- not eating enough or overeating
- having insomnia or sleeping too much
- distancing yourself from other people and favorite activities
- feeling fatigue even with enough sleep
- feeling numbness or

Issue No: 23

lacking empathy

experiencing unexplainable body pains or achiness

- feeling hopeless, helpless or lost
- smoking, drinking, or using illicit drugs more than ever before
- feeling confusion, forgetfulness, irritability, anger, anxiety, sadness, or fright
- constantly fighting or arguing with friends and family
- having extreme mood swings that cause relationship problems
- having constant flashbacks or thoughts that you can't get out of your head
- hearing voices in your head that you can't stop
- having thoughts of hurting yourself or other people being unable to carry out day-to-day activities and chores

Stress and periods of emotional distress can lead to an episode of symptoms. That may make it difficult for you to maintain normal behavior and activities. This period is sometimes called a nervous or mental breakdown. Read more about these episodes and the symptoms they cause.

### Mental health diagnosis

Diagnosing a mental health disorder is a multi-step process. During a first appointment, your doctor may perform a physical exam to look for signs of physical issues that could be contributing to your symptoms.

Some doctors may order a series of laboratory tests to screen for underlying or less obvious possible causes.

# PROSTATE CANCER

### **Overview**

rostate cancer is cancer that occurs in the prostate — a small walnut-shaped gland in men that produces the seminal

fluid that nourishes and transports sperm.

Prostate cancer is one of the most common types of cancer in men. Usually prostate cancer grows slowly and is initially confined to the prostate gland, where it may not cause serious harm.

However, while some types of prostate cancer grow slowly and may need minimal or even no treatment, other types are aggressive and can spread quickly.

Prostate cancer that's detected early — when it's still confined to the prostate gland — has a better chance of successful treatment.

### **SYMPTOMS**

Prostate cancer may cause no signs or symptoms in its early stages.

Prostate cancer that's more advanced may cause signs and symptoms such as:

- Trouble urinating
- Decreased force in the stream of urine
- Blood in semen
- Discomfort in the pelvic area
- Bone pain
- Erectile dysfunction

### WHEN TO SEE A DOCTOR

Make an appointment with your doctor if you have any signs or symptoms that worry you. Debate continues regarding the risks and benefits of prostate cancer screening, and medical organizations differ on their recommendations. Discuss prostate cancer screening with your doctor. Together, you can decide what's best for you.

### **CAUSES**

It's not clear what causes prostate cancer.

Doctors know that prostate cancer begins when some cells in your prostate become abnormal.

Mutations in the abnormal cells' DNA cause the cells to grow and divide more rapidly than normal cells do. The abnormal cells continue living, when other cells would die. The accumulating abnormal cells form a tumour that can grow to invade nearby tissue. Some abnormal cells can also break off and spread (metastasize) to other parts of the body.

### **RISK FACTORS**

Factors that can increase your risk of prostate cancer include:

- **Age.** Your risk of prostate cancer increases as you age.
- Race. For reasons not yet determined, black men carry a greater risk of prostate cancer

than do men of other races. In black men, prostate cancer is also more likely to be aggressive or advanced.

- Family history. If men in your family have had prostate cancer, your risk may be increased. Also, if you have a family history of genes that increase the risk of breast cancer (BRCA1 or BRCA2) or a very strong family history of breast cancer, your risk of prostate Prostate cancer may be higher.
- Obesity. Obese men diagnosed with prostate cancer may be more likely to have advanced disease that's more difficult to treat.

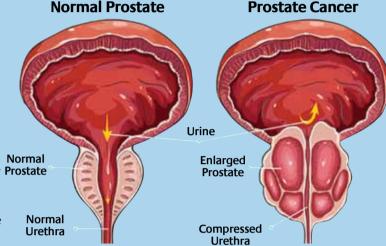
### **COMPLICATIONS**

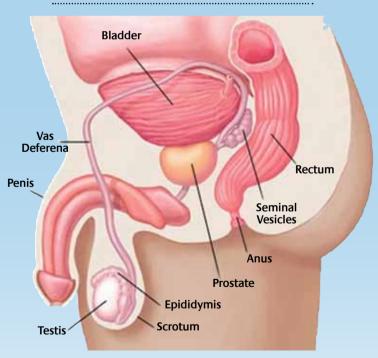
Complications of prostate cancer and its treatments include:

- (metastasizes). Prostate cancer can spread to nearby organs, such as your bladder, or travel through your bloodstream or lymphatic system to your bones or other organs. Prostate cancer that spreads to the bones can cause pain and broken bones. Once prostate cancer has spread to other areas of the body, it may still respond to treatment and may be controlled, but it's unlikely to be cured.
- Incontinence. Both prostate cancer and its treatment can cause urinary incontinence.

  Treatment for incontinence depends on the type you have, how severe it is and the likelihood it will improve over time.

  Treatment options may include medications, catheters and surgery.
- Erectile dysfunction. Erectile dysfunction can result from prostate cancer or its treatment, including surgery, radiation or hormone treatments. Medications, vacuum devices that assist in achieving erection and surgery





are available to treat erectile dysfunction.

### **PREVENTION**

You can reduce your risk of prostate cancer if you:

 Choose a healthy diet full of fruits and vegetables.
 Avoid high-fat foods and instead focus on choosing a variety of fruits, vegetables and whole grains. Fruits and vegetables contain many vitamins and nutrients that can contribute to your health.

Whether you can prevent prostate cancer through diet

# MENTAL HEALTH

### **FROM PAGE 06**

Your doctor may ask you to fill out a mental health questionnaire. You may also undergo a psychological evaluation. You might not have a diagnosis after your first appointment.

Your doctor may refer you to a mental health expert. Because mental health can be complex and symptoms may vary from person to person, it may take a few appointments for you to get a full diagnosis.

### Mental health treatment

Treatment for mental health disorders is not one size fits all, and it does not offer a cure. Instead, treatment aims to reduce symptoms, address underlying causes, and make the condition manageable.

You and your doctor will work together to find a plan. It may be a combination of treatments because some people have better results with a multiangle approach. Here are the most common mental health treatments:

### **Medications**

The four main categories of medications used to treat mental health disorders are antidepressants, anti-anxiety medications, antipsychotic medications, and moodstabilizing medications.

Which type is best for you will depend on the symptoms you experience and other health issues you may face. People may try a few medications at different doses before finding something that's right for them.

### **Psychotherapy**

Talk therapy is an opportunity for you to talk with a mental health provider about your experiences, feelings, thoughts, and ideas. Therapists primarily act as a sounding board and neutral mediator, helping you learn coping techniques and strategies to manage symptoms. Hospital and residential treatment

Some people may need brief periods of intensive treatment at hospitals or residential treatment facilities. These programs allow an overnight stay for in-depth treatment. There are also daytime programs, where people can participate in shorter periods of treatment.

### Lifestyle treatments and home remedies

Alternative treatments can be used in addition to mainstream treatments as a supplement. These steps won't eliminate mental health issues alone, but they can be helpful.

They include sticking to your treatment plan as closely as possible, avoiding alcohol and drugs, and adopting a healthy lifestyle that incorporates foods that may be a benefit to your brain. This includes omega-3 fatty acids, a type of fish oil that occurs naturally in some high-fat fish.

### Mental health therapy

The term therapy refers to several styles of talk therapy. Therapy can be used to treat a variety of disorders, including panic disorders, anxiety, depression, anger issues, bipolar disorder, and post-traumatic stress disorder.

Therapy helps people identify mental health issues and unhealthy behaviors or thought patterns. During sessions you and your therapist can work to change these thoughts and behaviors.

In most cases, therapists focus on current issues, things that are affecting your daily life, and help you find solutions to what you're experiencing in real time, but each doctor's approach is different. Read more about the different types and what results you might expect from therapy.

### Mental health first aid

Mental Health First Aid is a national public education course. It's designed to teach people about the warning signs and risk factors of mental health issues. In the training, participants learn about treatments and approaches that can help people with mental health disorders.

This training program is made for people who regularly interact with patients in a healthcare setting. Through scenarios and role-playing, healthcare providers can learn how to help a person in crisis connect with professional and self-help treatment steps.

### Mental health exercises

Physical exercise is great for your body. Dancing, swimming, walking, and jogging boost cardio health and strength. They're also great for your mind. Research shows they can help reduce symptoms of depression and anxiety.

However, there are also "exercises" you can do for your brain. These include:

 Striking a power pose. People who use "power poses" (aka hands on hips) may see a temporary drop in feelings of social anxiety.

- Listening to calming music.
   A 2013 study of 60 women
   revealed that people who
   listen to relaxing music
   recover faster after stress
   than people who relax but
   do not listen to music.
- Practicing progressive muscle relaxation. This process involves tightening and then slowly relaxing various muscle groups. It may be combined with other techniques like listening to calming music or breathing exercises.
- Finding a yoga pose. One 2017 study showed that just two minutes of performing yoga poses can boost selfesteem and help increase bodily energy.

### Mental health test

When you talk with your doctor or therapist about your mental health, they may go through a series of examinations in order to reach a diagnosis. These steps could include a physical examination, blood or laboratory tests, and a mental health questionnaire.

A series of questions helps doctors understand your thoughts, responses, and reactions to events and scenarios. While this test won't return immediate results, it will help your doctor better understand what you're experiencing.

Avoid taking online mental health tests. While these may provide some insight into causes of symptoms, they aren't administered by a healthcare professional. The questions and answer options may not be as specific as a doctor or therapist might be in an in-person testing environment.

### Mental health recovery

Most individuals with mental health issues can and will find treatments that are successful. That means you can get better. Some mental health issues,

however, are chronic and ongoing, but even these can be managed with proper treatment and intervention.

Recovery from mental health disorders or issues requires ongoing attention to your mental and overall health, as well as adherence to any behavioral therapy techniques learned from a therapist.

In some cases, treatments like medication may be needed on an on-going basis; others may be able to stop using them at some point. What recovery will mean for you is different than recovery for another person.

### Mental health awareness

Mental health is a vital concern for healthcare professionals. Most people know the signs and symptoms of physical illnesses, like a heart attack or stroke. But, they may not be able to pinpoint the physical effects of anxiety, PTSD, or panic.

Awareness campaigns are designed to help people understand these common signs and symptoms.

Knowing that they're not alone may invite people to seek treatment from a professional. Treatment is key to relief from symptoms and maintain a healthy,



active life.

### Mental health in teens

Around 21 percent of teenagers between 13 and 18 years old have experienced a severe mental health disorder, according to the National Alliance on Mental Illness (NAMI). Half will develop a disorder by the time they're 14 years old.

A significant number of youth are affected by depression in particular. According to the National Institute of Mental Health (NIMH), around 13 percent between 12 and 17 years old had at least one major depressive episode in 2017.

In fact, endorsing universal depression screening for 12- to 18-year-olds can be performed by a primary care physician.

### Signs and symptoms in

The signs and symptoms of mental illness may be brushed aside as the angst of the turbulent teenage years. But, these may be the earliest predictors of mental health disorders or issues that

require treatment.

Signs of mental health issues in teenagers include:

- loss of self-esteem
- excessive sleeping
- loss of interest in activities or favorite hobbies
- sudden and unexpected decline in academic performance
- weight loss or changes in appetite
- sudden personality changes, such as anger or aggression

Source: www.healthline.com

# PROSTATE CANCER

### **FROM PAGE 07**

has yet to be conclusively proved. But eating a healthy diet with a variety of fruits and vegetables can improve your overall health.

Choose healthy foods over supplements. No studies have shown that supplements play a role in reducing your risk of prostate cancer. Instead, choose foods that are rich in vitamins and minerals so that you can maintain healthy levels of vitamins in your body.

· Exercise most days of the week. Exercise improves your overall health, helps you maintain your weight and improves your mood. There is some evidence that men who don't exercise have higher PSA levels, while men who exercise may have a lower risk of prostate cancer.

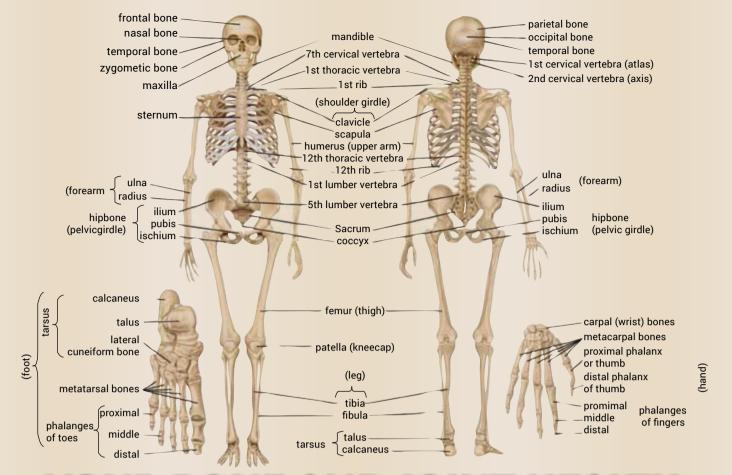
Try to exercise most days of the week. If you're new to exercise, start slow and work your way up to more exercise time each day.

 Maintain a healthy weight. If your current weight is healthy, work to maintain it by exercising most days of the week. If you need to lose weight, add more exercise and reduce the number of calories you eat each day. Ask your doctor for help creating a plan for healthy weight loss.

 Talk to your doctor about increased risk of prostate cancer. Men with a high risk of prostate cancer may consider medications or other treatments to reduce their risk. Some studies suggest that taking 5-alpha reductase inhibitors, including finasteride (Propecia, Proscar) and dutasteride (Avodart), may reduce the overall risk of developing prostate cancer. These drugs are used to control prostate gland enlargement and hair loss in men.

However, some evidence indicates that men taking these medications may have an increased risk of getting a more serious form of prostate cancer (high-grade prostate cancer). If you're concerned about your risk of developing prostate cancer, talk with your doctor.

Source: Mayo Clinic



# YOUR BONE AND JOINT HEALTH

ood bone and joint health is vital to your overall wellbeing. Your bones serve several important functions. For example, bones:

- Provide structure for your body
- Protect your organs
- Anchor your muscles
- Store your body's calcium reserve.

Maintaining good bone and joint health is one of the most important things you can do for yourself and your loved ones. At current rates, it is estimated that as many as 70% of Canadians will require orthopaedic surgery at some point in their lifetime. With healthy choices about nutrition, activities and activity levels, and preventing injury, bone and joint health can carry us throughout our lives – longer and stronger.

### Nutrition

In the opinion of the Canadian Orthopaedic Foundation, nothing says "healthy nutrition" like Canada's Food Guide. A balanced diet, necessary for us to absorb the nutrients we need

- like calcium, and reasonable portions are needed for overall health and to enable strong bones and joints. Here are some specifics to help you in your choices:
- Your bones need Calcium to keep them healthy and strong, found in:
  - · Low fat or non fat milk
  - Cheese
  - Yogurt
- Broccoli
- Brussel Sprouts
- Fish (with bones in)
- Reans
- Soy and tofu products
- Vitamin D is needed to aid absorption of calcium and is found in milk, margarine, egg yolks, and even sunshine.
- Avoid caffeine and alcohol.
   Both of these can interfere with calcium absorption and lead to bone loss.
- Watch sweets, fats, and portions to contribute to your healthy weight. Extra weight on your body is hard on your joints.

### **Keeping Active**

Activity Choices to Restore and Maintain Bone and Joint

### Health

Physical activity is important for keeping your joints limber and muscles strong, but also can improve balance and coordination. It helps maintain healthy muscles, which may prevent falls that could lead to fractures. The best type of activity for you depends on age and ability. The information on these pages should be used as a guide, but check with your doctor before starting any exercise program or activity, and select exercise that is right - and enjoyable - for you.

### **Bone Mass**

An important consideration for healthy bones and joints is bone mass. Bone mass is determined by the type and intensity of exercise, the age at which it began, and the number of years spent in training. Physical activity is critical to the developing bones of children and teens. For adults, peak bone mass is reached around the mid thirties, at which time, physical activity is vital to conserving bone.

### Variety is the Spice

Activities for all ages should be a combination of vigorous and moderate.

- Vigorous activity makes you breathe harder and your heart pump faster.
- Moderate activity keeps you moving.

### Already Have Painful Joints?

If you already have joint pain, select non-impact exercise that won't cause further wear to your already painful joints. Consider cycling, swimming, even in-line skating, and other activities during which you're not coming down hard on your feet (like running) or pivoting and twisting joints (like basketball). This is important, because knees absorb the greatest force of the impact.

As your joints become stronger, check with your doctor, and graduate to walking and stair-climbing. Listen to your body – it will tell you when you're pushing your own limits.

# **HIV SCREENING: TESTS THAT DIAGNOSE HIV**



he only way to know if you have HIV is to get an HIV test.

Several types of tests check your blood or body fluids to see if you're infected. Most can't detect HIV right away, because it takes time for your body to make antibodies or for enough virus to grow inside you. It may be up to 6 months before you'll see a positive result, which means an early test could be negative even though you're infected.

If you do have the virus, finding out quickly means you can start treatment to help you live a long and full life. You can also take precautions so that you don't pass HIV to other people.

### **Antibody Screening Tests**

These tests check for a kind of protein that your body makes in response to the HIV infection, 2-8 weeks later. They're also called immunoassay or ELISA tests. They're generally very accurate, but they won't catch early infections.

Usually, a technician will take a small blood sample and send it to a lab for testing. Some immunoassay tests check urine or fluids from your mouth (not saliva), but there aren't as many antibodies in these, so you may not get a positive result even if you're infected. (That's called a false negative.)

Rapid versions of these blood and oral fluid tests can give results in under 30 minutes, but they may give false negatives, too.

### Antibody/Antigen **Combination Tests**

The CDC recommends these blood tests. They can detect HIV earlier than antibody screening tests. They check for HIV antigen, a protein called p24 that's part of the virus that shows up 2-4 weeks after infection. They also check for HIV antibodies.

A rapid antibody/antigen test can give you results in 20 minutes.

### **RNA Test**

This looks for the virus itself and can diagnose HIV about 10 days after you've been exposed. It's expensive, though, so it's usually

**STAY TESTED PRIMARY HIV INFECTION** 

**WINDOW PERIOD** 

**MANY PEOPLE DEVELOP ANTIBODIES DURING THIS PERIOD** 

**ANTIBODIES CAN BE DETECTED** 

**Undetectable** but infectious

HIV may be detectable during this period

Connect to care, start and adhere to treatment

not the first test. But if you're at high risk and you have flu-like symptoms, your doctor may want to use it.

### In-Home Test Kits

Two kits are available in the U.S. You can buy them at your local store or online. Make sure the one you choose is FDA-approved.

One option is to prick your finger to get a small blood sample that you send to a lab. You call to get your result within a few business days. and it's anonymous (you don't have to give your name). If it's positive, the lab will also do a follow-up test.

For the other, you'll swab your upper and lower gums and test the sample in a vial. You get a result in 20 minutes. Maybe 1 in 12 people who are infected get a false negative from this test. You should get a lab test of your blood if it's positive.

To get a positive result from a home blood test, you'll have to be infected with HIV longer

would

with

than you

Issue No: 23

the in-person tests above. The home oral fluid test needs even more time.

### **Results and Follow-up**

A positive result means there were traces of HIV. If you had a rapid test, you should get a standard lab test to confirm it. If you had a lab test, more detailed tests on your blood sample can help confirm the diagnosis:

- · Western blot or indirect immunofluorescence assay
- Antibody differentiation, between HIV-1 and HIV-2

If you got an HIV test within the first 3 months after

vou could have been infected and it was negative, get another test at 6 months to be sure.

### When Should You Get **Tested?**

You could have an HIV infection if vou:

- · Have had several sexual partners
- Had unprotected sex with someone who is or could be HIV-positive, including someone whose sexual history you don't know
- Injected drugs with a needle. syringe, or other equipment someone else had used first
- Have had or are getting tested for TB, hepatitis, or any sexually transmitted disease, including syphilis, gonorrhea, or herpes.
- Have had sex for drugs or money
- Had sex with someone who has a history of any of these

Pregnant women should also get tested. And in fact, the CDC recommends that all persons between the ages of 13 and 64 get tested for HIV at least once.

Source: www.webmd.com

### **Five Generation** of HIV Tests



The first fifthgeneration assay is a multiplexed screening test that detects and differentiates all three

Second-generation tests relied on recombinant HIV proteins or synthetic peptides to detect HIV-1/2 IgG antibodies. The window period was reduced to 42 days.

Third-generation tests are basically combination or "combi" tests that can detect HIV-1 Group M (for "major," the common U.S. AIDS-causing strain) and O (for "outlier," the rare African strain), as well as HIV-2. They also use recombinant/ synthetic peptides to detect IgG antibodies, as well as immunoglobulin M (IgM) antibodies produced by B cells. The window period was reduced to 22 days.

Second-generation tests relied on recombinant HIV proteins or synthetic peptides to detect HIV-1/2 IgG antibodies. The window period was reduced to 42 days.

First-generation EIAs used an antigen consisting of viral lysates to detect immunoglobulin G (IgG) antibodies. The window period of infectivity detection was 56 days.

Understanding the CDC's updated HIV test protocol

# BONE AND JOINT HEALTH

### **FROM PAGE 10**

Non-impact exercise is the best choice for people who are overweight, for the same reasons as those who already have joint pain.
Rather than risk wear and tear on your joints, develop a regimen of non-impact exercise. As you loose the pounds, you can expand your activity choices. Your joints will thank you in a lifetime of healthy service.

Regardless your level of ability, you'll benefit from choosing from a variety of activities that develop different skills and keep your activity habits interesting:

- Endurance, vigorous activity for long distances or periods of time
- Flexibility, bending and stretching activities such as Yoga or Tai Chi
- Strength and Balance, resistance activities such as lifting weights

For tips on warm ups, see Injury Prevention.

Physical activity is important for being healthy. All ages need to move more and sit less as part of their everyday to help them achieve their optimal health.

Benefits of physical activity

Physical activity helps healthy growth and development. It:

- gives us energy
- decreases stress
- makes us stronger
- prolongs independence as we age

It also helps prevent these chronic diseases:

- cancer
- obesity hypertension
- heart disease
- type 2 diabetes

### Tips to get active

Being active doesn't have to be difficult. There are many ways to make physical activity a part of daily life:

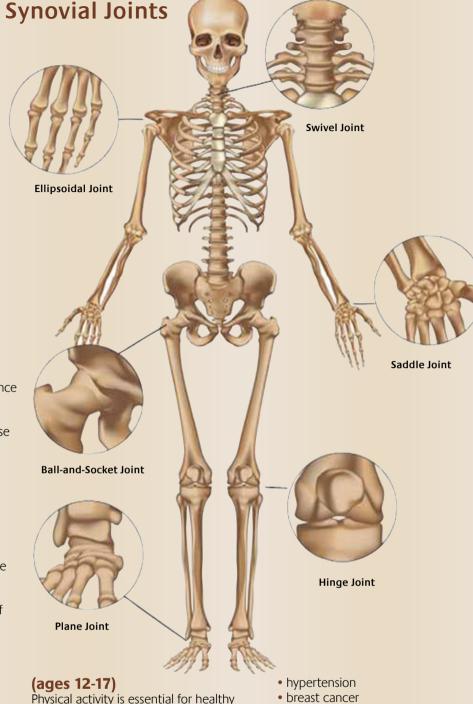
- at play
- at work
- at home
- at school
- on the way

Getting started is easier than you think. Start today and slowly increase your physical activity to meet the Canadian Guidelines.

Some easy ways you can stay active are:

- recreation and sports
- planned consistent exercise sessions
- active forms of transportation like walking or biking

For children (ages 5-11) and youth



Physical activity is essential for healthy growth and progress. Regular physical activity in childhood develops:

- strength
- heart health
- bone density

These benefits can prevent chronic diseases later in life.

Establishing positive habits early in childhood and adolescence can last a lifetime.

### For adults (ages 18-64)

Physical activity can reduce the risk of over 25 chronic conditions including:

- stroke
- colon cancer
- osteoporosis

- type 2 diabetes
- coronary heart disease

Regular physical activity and higher levels of fitness allow daily tasks to be done with greater ease and comfort and with less fatigue. Research shows that as much as half of functional decline between the ages of 30 and 70 is due, not to aging, but to an inactive way of life.

### For older adults (age 65 and older)

Weight-bearing physical activity reduces the rate of bone loss that goes with osteoporosis.

# 6 GREAT DENTAL HYGIENE TIPS FOR HEALTHY, WHITE TEETH



### Say cheese!

hat's the most widely used confirmation call used by people to inform a camera operator that they are ready to have their picture taken. I am sure you have used it too at some point. The purpose of saying cheese is so that your teeth will be visible, giving the appearance of a smile.

Having bad dental hygiene can make it difficult for anyone to say something as simple as cheese or to smile.

However, not being able to say cheese or smile pales in comparison to the avalanche of dental and oral diseases that you can suffer from if you treat your dental hygiene with contempt. Diseases such as gum disease, oral cancer and terrifyingly horrible breath (which is often an indication of other oral problems) can invade your mouth and make your life a living hell.

In fairness to some people, the problem -- besides not caring about dental hygiene -- can also be caring wrongly.

Are you tired of keeping your lips tight shut in social circles? Or perhaps you know someone having some serious dental nightmare? Here are some dental hygiene tips to ensure that you always you maintain good healthy, white teeth.

mouth properly

1. Brush your

Yes, I said mouth,

not teeth. The reason is that your teeth is not the only thing in your mouth; you have your gum, your tongue and the roof of your mouth. Those need cleaning too.

When brushing, place the bristles of the toothbrush at a 45-degree angle near the gum line, such that the bristles are in contact with both the teeth and the gum. Brush using a back and forth, up and down movement. When you are done repeat the same procedure for the inner surfaces of your teeth and gum.

Then brush the surfaces of your tongue and roof of your mouth. This will help to get rid of bacteria that cause bad breath. Remember to brush your teeth and gum lightly; do not attack them with the bristles, as this will do more harm than good.

Also, make a habit of brushing at least twice a day, preferably in the morning and in the evening.

2. Floss regularly

As wonderful as brushing regularly is, it is not holistic in its responsibility to clean your teeth. Brushing can clean the surface of the teeth, but it cannot do the same for the spaces in between teeth.

This is where flossing comes in. It helps to get rid of food residue and other detrimental substances stuck between the teeth. If you really care about your dental hygiene (and you should), get into the habit of flossing at least once a day.

### 3. Ensure that your diet is teeth-friendly

For most people, if not everybody, our primary reason for eating something is that it tastes good. But have we ever considered what this different foods or snacks do to our teeth?

Foods such as nuts, fruits (such as apples), cheese, chicken and vegetables are teeth friendly. Something extra to know about cheese is that it causes your salivary gland to produce more saliva, which neutralizes acid.

### 4. Limit intake of sodas and alcohol

Tobacco for one, is something you should run away from.
Avoiding this can save you from some periodontal complications such as oral cancer. Furthermore, stuff that you will take to mask the smell of tobacco such as sweets, tea or coffee will just end of doubling the damage to your teeth already caused by the tobacco.

You should also limit

your intake of soda and alcohol. These contain phosphorus, which is an important mineral for a healthy. But too much of everything is bad and this applies to phosphorus too. Too much of it can deplete the calcium level of the body, causing dental hygiene problems such as tooth decay and gum

Go instead with beverages that will help to build enamel strength and water, which hydrates your

disease.

body better than any sugary drink ever will.

Here is a helpful tip: if you must take sodas or alcohol, do so with a straw to avoid the drink having direct contact with your teeth.

### 5. Visit the dentist regularly

Applying everything stated in the previous points is not an excuse not to go for regular dental checkup. All you can do is your best and then leave the rest to the dental care experts.

As permissible as your schedule is, make it a habit to visit a dental care clinic regularly for full oral checkup and teeth cleaning. There are dental problems that you may not be able to identify on your own. Adhering to this can save you a whole world of hurt in the long run.

# 6. Leave a little fluoride in your mouth before bedtime

Fluoride helps to strengthen the tooth surface so why rinse it off after brushing your teeth?

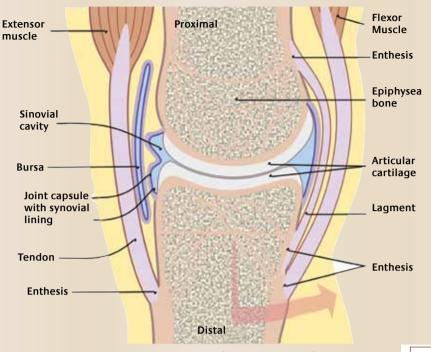
For many people it may not be ideal to carry toothpaste residue in their mouth the whole day and frankly it makes no logical sense as you will most likely make the mistake of swallowing it during the course of the day.

So it is not advisable to do this when brushing your teeth in the morning as you get ready for work. But what about at night before you go to bed? This is a better time to do this. Allow the fluoride sit on the surface of the teeth by not rinsing off the paste with water after brushing.

If you have just had a meal that leaves residue in your mouth, then brush your mouth twice. First time around is to get rid of the food residue and to avoid bacterial proliferation. After brushing the second time, just spit out the toothpaste and leave the residue on the teeth rather than rinsing it off with water.

www.huffpost.com

# BONE AND JOINT HEALTH



taking a fall, and invariably, the story includes, "I didn't see ... " or "I was hurrying to ...". To prevent injury, it's important to recognize risks and take steps so the fun - and your strengthening continues.

Wondering if this is really important? Ask the in-line skater who fractured his wrist when skating without wrist quards. Ask the hockey goalie whose skate caught a rut and cost him a meniscus tear. Ask the wedding guest who tripped on an electrical cord that wasn't taped down. Ask the grandmother who fell on a poorly-cleared sidewalk and fractured her hip. It's all important.

- · Every time you plan an activity, consider:
- Is there a risk for injury or an unsafe outcome?
- What can I do to decrease the risk?
- Am I physically able to do this?
- Am I aware of how to do this safely?
- Is there appropriate equipment and safety equipment to be worn or used?
- Are there special skills required? How can they be learned?
- Are there environmental hazards that need to be removed or fixed?

Source:

www:whenithurtstomove.org

### **FROM PAGE 12**

Regular physical activity maintains:

- balance
- strength
- flexibility
- coordination

It can also help reduce the risk of falls. In short, physical activity helps prolong good health and independence.

### **Injury Prevention Risk Reduction to Prevent**

Nothing can put a damper on a stroll in the park or a spirited game of touch football like an injury. The fun stops - and the injured finds himself or herself watching from the sidelines. Most unintentional injures are both predictable and preventable. As an example, think of any story you've heard about someone



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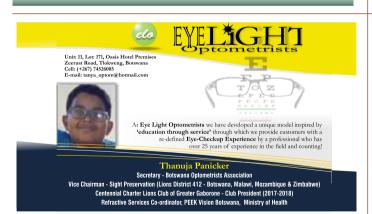
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Issue No: 23

# DIAGNOSTICS **DECEMBER** WORLD DAY



SATURDAY 1ST DECEMBER