Botswana's Premier Health Journal

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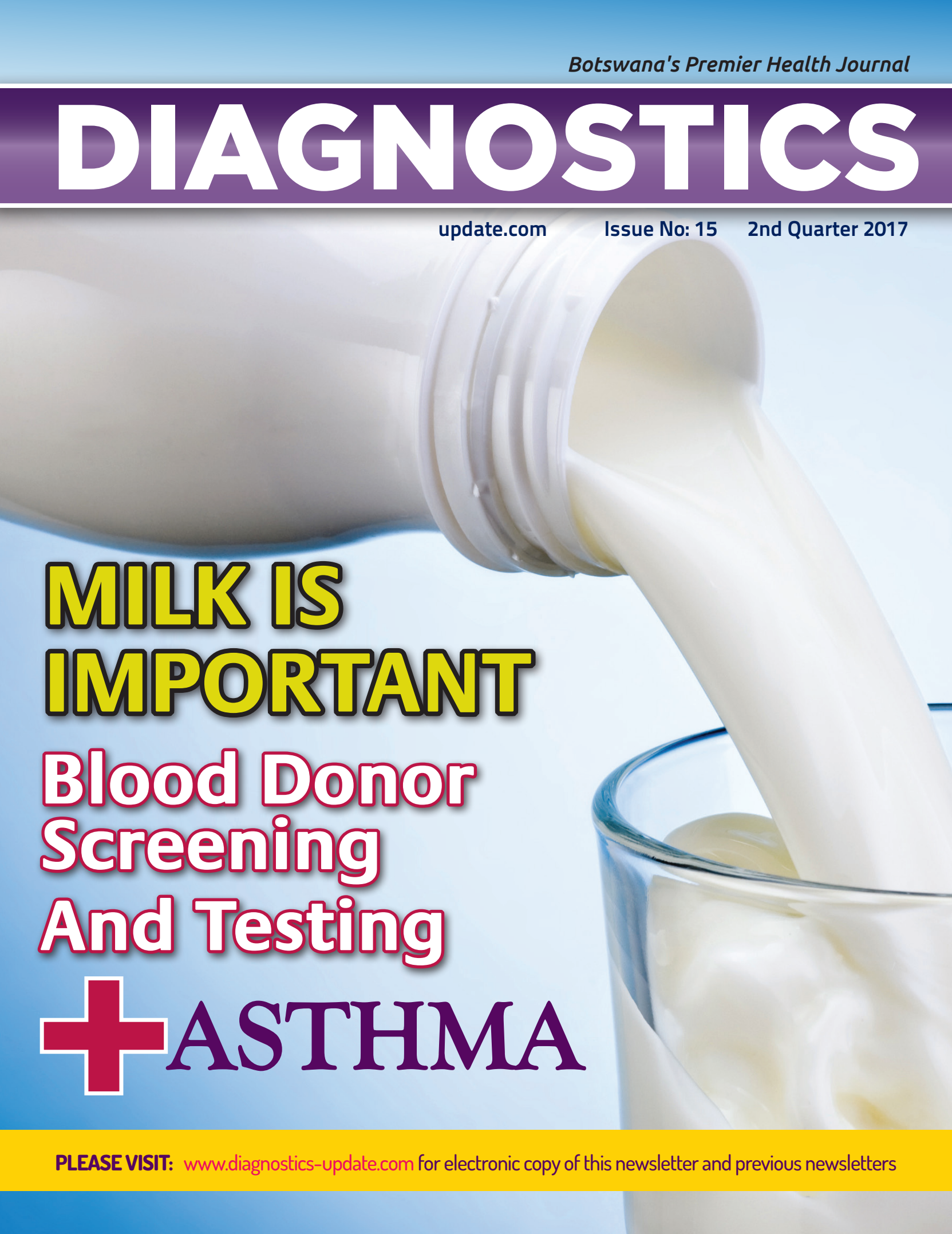

MILK IS IMPORTANT

Blood Donor Screening And Testing

+ ASTHMA

TABLE OF CONTENTS

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Dear Reader,

One 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.

IMMUNIZATION

Immunization is the process whereby a person is made immune or resistant to an infectious disease, typically by the administration of a vaccine. Vaccines stimulate the body's own immune system to protect the person against subsequent infection or disease. It's done through various techniques, most commonly **vaccination**. Vaccines against microorganisms that cause diseases can prepare the body's immune system, thus helping to fight or prevent an infection.

Importantly, Vaccination protects children from serious illness and complications of vaccine-preventable diseases which can include amputation of an arm or leg, paralysis of limbs, hearing loss, convulsions, brain damage, and death. Vaccine-preventable diseases, such as measles, mumps, and whooping cough, are still a threat.

What are the different types of immunizations?

Live, attenuated vaccine list:

- Vaccinia (smallpox)
- Measles, mumps, rubella (MMR combined vaccine)
- Varicella (chickenpox)
- Influenza (nasal spray)
- Rotavirus.
- Zoster (shingles)
- Yellow fever.

Why is it important to get vaccinated?

If an unvaccinated child is exposed to a disease germ, the child's body may not be strong enough to fight the disease. Before vaccines, many children died from diseases that vaccines now prevent, such as whooping cough, measles, and polio. ... Sick children can also cause parents to lose time from work.

Five Important Reasons to Vaccinate Your Child

You want to do what is best for your children. You know about the importance of car seats, baby gates and other ways to keep them safe.

But, did you know that one of the best ways to protect your children is to make sure they have all of their vaccinations?

Immunizations can save your child's life. Because of advances in medical science, your child can be protected against more diseases than ever before. Some diseases that once injured or killed thousands of children, have been eliminated completely and others are close to extinction– primarily due to safe and effective vaccines.

Polio is one example of the great impact that vaccines had have in the World. Polio was once most-feared disease, causing death and paralysis across the world, but today, thanks to vaccination, there are no reports of polio.

Vaccination is very safe and effective. Vaccines are only given to children after a long and careful review by scientists, doctors, and healthcare professionals. Vaccines will involve some discomfort and may cause pain, redness, or tenderness at the site of injection but this is minimal compared to the pain, discomfort, and trauma of the diseases these vaccines prevent.
Serious side effects following vaccination, such as severe allergic reaction, are very rare. The disease-prevention benefits of getting vaccines are much greater than the possible side effects for almost all children.

Immunization protects others you care about. While some babies are too young to be protected by vaccination, others may not be able to receive certain vaccinations due to severe allergies, weakened immune systems from conditions like leukemia, or other reasons. To help keep them safe, it is important that you and your children who are able to get vaccinated are fully immunized. This not only protects your family, but also helps prevent the spread of these diseases to your friends and loved ones.

Immunizations can save your family time and money. A child with a vaccine-preventable disease can be denied attendance at schools or child care facilities. Some vaccine-preventable diseases can result in prolonged disabilities and can take a financial toll because of lost time at work, medical bills or long-term disability care.

In contrast, getting vaccinated against these diseases is a good investment and usually covered by insurance. The Vaccines for Children program is a federally funded program that provides vaccines at no cost to children from low-income families. To find out more about the VFC program, ask your child's health care professional.

Immunization protects future generations. Vaccines have reduced and, in some cases, eliminated many diseases that killed or severely disabled people just a few generations ago. For example, smallpox vaccination eradicated that disease worldwide.

Your children don't have to get smallpox shots any more because the disease no longer exists. By vaccinating children against rubella (German measles), the risk that pregnant women will pass this virus on to their fetus or newborn has been dramatically decreased, and birth defects associated with that virus no longer are seen. If we continue vaccinating now, and vaccinating completely, parents in the future may be able to trust that some diseases of today will no longer be around to harm their children in the future.

For more information about National Infant Immunization Week, visit http://www.cdc.gov/vaccines/events/niiw/index.html.

MALARIA: CAUSES, SYMPTOMS AND TREATMENTS

Malaria is a life-threatening blood disease caused by parasites transmitted to humans through the bite of the Anopheles mosquito. Once an infected mosquito bites a human and transmits the parasites, those parasites multiply in the host's liver before infecting and destroying red blood cells.

The disease can be controlled and treated if diagnosed early on. Unfortunately, this is not possible in some areas of the world lacking in medical facilities, where malaria outbreaks can occur.
Researchers are working hard on improving the prevention of malarial infection, early diagnosis and treatment, with just one malaria vaccine close to being licensed so far.

Tests and diagnosis of malaria

Early diagnosis of malaria is critical for a patient's recovery. Any individual showing signs of malaria should be tested immediately. The WHO strongly advise parasitological confirmation by microscopy or a rapid diagnostic test (RDT).
The choice of testing method is, of course, dependent on the medical facilities available. RDT has become popular worldwide due to its capacity to provide a quick diagnosis.
RDTs are increasingly used as health care professionals seek to not only improve testing methodologies, but also to ensure that the opportunity for testing reaches a wider audience. The number of RDTs distributed by national malaria control programs around the world has increased substantially.

The signs and symptoms of the disease are non-specific. However, malaria is clinically suspected on the basis of fever, or a history of fever. Unfortunately, there is no combination of symptoms that can reliably distinguish the disease from other causes, hence the importance of a parasitological test.
In some malaria-endemic areas, the disease is so intense that a large proportion of the local population can develop a mild immunity to the disease. As a result, some people can still carry the parasites in their bloodstream, but do not fall ill.

Treatments for malaria

If left untreated, malaria can be fatal. The aim of treatment is to eliminate the Plasmodium parasite from the patient's bloodstream. Even those who are asymptomatic may be treated for infection so as to reduce the risk of disease transmission in the general populace.

Anti-malaria drugs are more accessible than ever before, but further challenges lie ahead until the disease is eradicated.
Artemisinin-based combination therapy (ACT) is recommended by the WHO to treat uncomplicated malaria. Artemisinin is derived from the plant Artemisia annua, better known as sweet wormwood, and is known for its ability to reduce quickly the number of Plasmodium parasites in the bloodstream.

ACT is artemisinin combined with a partner drug. The role of artemisinin is to reduce the number of parasites within the first three days while the partner drugs eliminate the rest.

Expanding the access to ACTs has been integral to the global fight against the disease.

However, there is growing concern about the increase of cases of malaria resistant to the effects of ACTs. For these cases, individuals were still successfully treated, but the ACT must contain an effective partner drug.

The WHO has warned that as no alternatives to artemisinin are likely to become available for several years, and because ACTs are the main treatment for P. falciparum malaria, it is of paramount importance that steps be taken to prevent the spread of ACT-resistant strains. National malaria control programs are now being asked to regularly monitor the efficacy of antimalarial medicines in use to ensure that treatments remain efficacious.

Vaccines for malaria

Research is ongoing to develop safe and effective vaccines for malaria.
The development of an effective malaria vaccine poses major challenges as a comprehensive vaccine would need to be effective against a number of strains of malaria parasites. As such, the majority of vaccines in development are focused on the most serious and deadly parasite, Plasmodium falciparum. The development of a vaccine against P. vivax is complicated by the associated relapses and hypnozoite stages of infection with this parasite.

ASTHMA

If you frequently experience shortness of breath or you hear a whistling or wheezy sound in your chest when you breathe, you may have asthma — a chronic condition that causes inflammation and narrowing of the bronchial tubes, the passageways that allow air to enter and leave the lungs.

If people with asthma are exposed to a substance to which they are sensitive or a situation that changes their regular breathing patterns, the symptoms can become more severe.
Asthma symptoms are one of the leading causes of absences from work and school.

Asthma often runs in families; according to the World Health Organization, about half the cases are due to genetic susceptibility and half result from environmental factors. Although there is no cure for asthma, effective treatments are available.

Asthma can be best managed by seeing an allergist. There are two types of asthma: allergic (caused by exposure to an allergen) and nonallergic (caused by stress, exercise, illnesses like a cold or the flu, or exposure to extreme weather, irritants in Asthma

Symptoms

- Coughing
- Shortness of breath
- Chest tightness
- Wheezing (a whistling or squeaky sound in your chest when you breathe, especially when exhaling)

Asthma Triggers

- Outdoor allergens, such as pollens from grass, trees and weeds
- Indoor allergens, such as pet dander, dust mites and mold
- Certain drugs and food additives
- Irritants in the air, such as smoke, chemical fumes and strong odors
- Colds, the flu or other illnesses
- Exercise (although people with asthma can benefit from some exercise)
- Stress
- Weather conditions, such as cold air or extremely dry, wet or windy weather

Asthma Management and Treatment

Prevention of symptoms is the best strategy. A person with asthma should know what situations trigger an attack and avoid them whenever possible.
If asthma attacks are severe, are unpredictable or flare up more than twice a week, consultation with an allergist can help to determine their cause and provide long-term treatment that controls or eliminates the symptoms.

Asthma Facts and Figures

Studies show that people with asthma who see a specialist, such as an allergist, reduce their:

- Symptoms
- Emergency room visits
- Hospital stays
- Visits to the doctor because they are sick
- Missed days from work or school
- Health care costs

Many people with asthma manage the condition well and can live a healthy and productive life by avoiding triggers and following their allergists' instructions. If left unmanaged or misdiagnosed, asthma can be fatal.

Blood Donor Screening and Testing

Overview

In an effort to ensure the blood supply is as safe as possible, all donors must meet specific eligibility criteria outlined by the Food and Drug Administration, accrediting organizations such as AABB, and individual donation centers.

To donate, individuals must be at least 16 years old (or the age specified by state law), healthy and feeling well on the donation day. In addition, donors must meet weight and hemoglobin level requirements.
Specific criteria exist for donors of human cells, tissue, and cellular- and tissue-based products as well. Although the criteria are very similar to that applied to blood donors, there are differences due to the unique patient needs for these products (see related HCT/P content).

Donors also are screened for disease risk factors using a health history questionnaire. Through this confidential questionnaire, donors are asked specific and direct questions regarding lifestyle, health, medical history and travel to assure their own health will not be compromised by a blood donation and that patients receive safe blood products.

Donors can be deferred for a variety of reasons: signs and symptoms of relevant transfusion-transmitted infections, such as HIV, viral hepatitis, HTLV, syphilis or West Nile virus; social behaviors that increase their risk of exposure to infectious diseases, including men who have sex with other men, intravenous drug use and exchanging sex for drugs or money; travel to certain countries where the risk of exposure to a particular infectious disease is of concern; medical procedures that involve receipt of dura mater graft, transfusion of blood or blood components within the previous 12 months, or human-derived clotting factors within the previous 12 months; incarceration under certain circumstances; obtaining a piercing or tattoo using nonsterile materials within the previous 12 months; certain medications;

and pregnancy. Donors also may be deferred because of reactive test results to infectious diseases, such as syphilis, HIV, hepatitis, HTLV and WNV. In some cases, if it is determined that these results were false positives, an individual may be re-entered into the donor pool by following the requalification methods outlined by the FDA.
Because donor eligibility requirements are considered to be an important step in assuring a safe donation process for the donor and reducing the risk of transfusion transmission of a disease to a patient, AABB works with the FDA to ensure appropriate eligibility requirements are in place. AABB also works with the FDA to streamline processes for re-entry of donors deferred for false-positive test results.

Who can give blood

Most people can give blood. You can give blood if you:

- are fit and healthy
- weigh over 7 stone 12 lbs or 50kg
- are aged between 17 and 66 (or 70 if you have given blood before)
- are over 70 and have given blood in the last two years

How often can I give blood?

Men can give blood every 12 weeks and women can give blood every 16 weeks.

Check you are able to give blood

If you have an existing medical condition or have a question about your eligibility to give blood you should check the health and travel section before you book an appointment.
Common eligibility questions include:

- receiving treatment
- taking medication
- travelling outside of the UK
- tattoos
- pregnancy
- illness
- cancer
- received blood, blood products or organs

If you answered yes to any question on your Donor Health Check questionnaire, you should check the A-Z list of health and travel queries to see if you are able to give blood.

Women under 20 - check if you can give blood

If you are a woman under 20 and you weigh under 10st 3lb or 65kg or are under 5' 6" or 168cm tall you will need to estimate your blood volume to see if you can give blood.

MILK IS IMPORTANT

It contains protein, carbohydrates, vitamins, minerals and fat: Protein is important to fight diseases, reAnew cells, build muscles and maintain healthy hair and nails. That is why your diet should provide enough proteins. Milk is an important source of protein, since each glass contains almost 8 grams.

Why is milk good for your health?

Milk is known for its richness in calcium and thus its importance for your bones, but did you know that milk contains more than 9 other essential nutrients?

It contains protein, carbohydrates, vitamins, minerals and fat:

- Protein is important to fight diseases, renew cells, build muscles and maintain healthy hair and nails. That is why your diet should provide enough proteins. Milk is an important source of protein, since each glass contains almost 8 grams.
- The source of carbohydrates in milk is lactose which gives energy to the body.
- Minerals and vitamins: Milk is rich in many nutrients that are essential for good health, for stronger bones (Calcium, Vitamin D, Phosphorous), for more energy (B vitamins), for a stronger immune system and for healthier skin (Vitamin A).
- Fats in milk constitute essential fatty acids which are important for body cells, as long as they are taken in moderate quantities.

Ask the doctor: Is milk fattening?

Milk is not high in calories when it's low fat or 0% fat. If you're on a diet, concentrate on lowering the amount of fat within your diet. So, don't remove milk totally from your diet, but choose low fat or 0% fat milk since it contains all the nutrients found in full cream milk except for the fat.

It is important to know that not all milks are the same. Fortifying milk with vitamins and minerals is a very delicate process, and the quality and quantity of the added nutrients have a direct effect on health.

What are the benefits of drinking milk?

That is because cow's milk offers a rich source of calcium, a mineral essential for healthy bones and teeth. Cow's milk is also often fortified with vitamin D, which is also beneficial for bone health. However, other nutrients are also necessary for bone health, such as vitamin K, strontium, magnesium and vitamin C.

Is milk good for building muscle mass?

In fact, milk is one of the best muscle foods on the planet. You see, the protein in milk is about 20 percent whey and 80 percent casein. Both are high-quality proteins, but whey is known as a "fast protein" because it's quickly broken down into amino acids and absorbed into the bloodstream.

Can you give a toddler too much milk?

A toddler who drinks too much milk may be getting plenty of calcium, but she probably is eschewing other foods and drinks that have high levels of other nutrients. If your child drinks more than three cups of milk a day, she may be getting half, or more, of her daily calorie intake from milk alone.

4 Reasons to Love Milk

Why milk is good for your body.

1. It helps keep your weight in check.

Several observational studies show that people who consume more dairy products weigh less and have less body fat than those who consume less. Milk seems to satisfy our hunger better than other drinks—perhaps due to its protein, suggests a study published in 2009 in the American Journal of Clinical Nutrition. In that study, people who drank skim milk felt fuller and ate less at their next meal than people who drank a fruit drink. If you are concerned about weight gain, choose low-fat or nonfat milk instead of whole milk, which can have as much as 8 grams of fat per serving.

2. It builds bone.

Just 1 cup of milk provides 30 percent of the daily value of calcium, a mineral that helps build and maintain strong bones and teeth. To get that amount of calcium from other foods you'd have to eat more than 7 cups of raw broccoli, for example. Calcium is critical to the formation of bones in children and teenagers and becomes equally important to rebuild the bone mass that we lose as we age.

3. It's the #1 source of vitamin D.

Scientists are discovering that vitamin D is not only important for proper calcium absorption, but also may improve immunity, reduce risks for some cancers, diabetes and multiple sclerosis, and promote better blood pressure.

Milk provides nearly 43 percent of the vitamin D we get through our diets, making it the number one source. Fortification of milk began to prevent rickets, a disease characterized by soft, deformed bones.

4. It helps keep muscles strong.

One cup of milk provides 16 percent of the daily value for protein, which builds and repairs muscles. In fact, several small studies (partially funded by the dairy industry) found that chocolate milk might help athletes refuel as well as or better than popular sports drinks.

Chocolate milk contains the mix of protein and carbohydrate the body needs to recover its energy supplies after an intense workout.

BENEFITS OF USING AN ACCREDITED MEDICAL LABORATORY

Choosing an accredited laboratory provides peace of mind and an assurance of a job well done. You wouldn't drive a car that isn't roadworthy – because the risks are obvious. The same is true of services from medical laboratories – you need to make sure that your choice is safe and assured. You need the confidence that the laboratory operates within defined procedures and to established standards.

You want to know that your tests will be undertaken by a laboratory that has the right people, facilities, expertise, systems and track record to do the job right – first time and every time.

That's what laboratory accreditation is all about.

Accreditation is a means of determining the technical competence of testing, calibration and medical laboratories to perform specific types of testing, measurement and calibration.

It provides formal recognition that laboratories are competent, impartial and independent, therefore providing a ready means for customers to identify and select reliable testing, measurement and calibration services that are able to meet their needs.

To maintain this recognition, laboratories are re-evaluated regularly by a recognised accreditation body to ensure their continued compliance with requirements, and to check that their standard of operation is being maintained.

Laboratory accreditation is highly regarded both nationally and internationally as a reliable indicator of technical competence.

Accreditation uses criteria and procedures specifically developed to determine technical competence. Specialist technical assessors conduct a thorough evaluation of a factors in a laboratory that affect the laboratory results.

The criteria are based on the international standards called ISO 15189, which are used to evaluate medical laboratories throughout the world.

What factors are important when choosing a laboratory?

When selecting a testing, calibration or measurement laboratory, you need to be sure that it can supply you with accurate and reliable results that meet your requirements.

The list of the test, calibration, or measurement procedures for which the laboratory is accredited is specified in a laboratory's Scope of Accreditation, which can either be provided by the laboratory upon request, or is contained within the directory of accredited laboratories produced by the accreditation body. You should check that the laboratory is accredited for the specific work that you require to be undertaken.

The technical competence of a laboratory depends on a number of factors, including:

- Qualifications, training and experience of the staff
- Correct equipment – properly calibrated and maintained
- Adequate quality assurance procedures
- Proper sampling practices
- Appropriate and valid testing procedures and methods
- Traceability of measurements to national standards
- Accurate recording and reporting procedures
- Suitable testing facilities

By being accredited, the laboratory is demonstrating that these requirements, amongst others, have been and continue to be met, thus assuring you, the client, that your laboratory's examination results are accurate and reliable.

Advantages of using an accredited laboratory

Most of the accreditation bodies have adopted ISO 15189 as the basis of accrediting medical laboratories. This has helped countries employ a uniform approach to determining laboratory competence.

This uniform approach allows countries to establish agreements among themselves, based on mutual evaluation and acceptance of each other's accreditation systems.
Such international agreements, called mutual recognition arrangements (MRAs), are crucial in enabling laboratory data to be accepted between countries. This effectively reduces costs to the patients as it eliminates the need for re-testing in another laboratory.

TO PAGE 9

BENEFITS OF USING AN ACCREDITED MEDICAL LABORATORY

FROM PAGE 8

Other benefits to the client include:

- The knowledge that results are traceable to international standards
- The knowledge that tests have been carried out by competent staff on well-maintained, regularly calibrated equipment
- The knowledge that results are as reliable as possible
- In the event of a dispute the results will carry far more weight than results from a non-accredited laboratory.

How does using an accredited lab benefit government and regulators?

Government bodies and regulators are constantly called upon to make decisions related to:

- Protecting the health and welfare of consumers and the public
- Protecting the environment
- Developing new regulations and requirements
- Measuring compliance with regulatory and legal requirements
- Allocating resources, both technical and financial

In order to make informed decisions, they must have confidence in the data generated by laboratories carrying out testing, measurement or calibration in these fields.
Using an accredited laboratory can help establish and assure this confidence.

When a laboratory is accredited by a recognised accreditation body, it has demonstrated that a prescribed level of technical competence to perform specific types of testing, measurement or calibration activities has been achieved.

The result is assurance that the laboratory is capable of producing data that is accurate, traceable and reproducible – critical components in governmental decision-making.
Using an accredited laboratory benefits government and regulators by:

- Increasing confidence in data that is used to establish baselines for key analyses and decisions
- Reducing uncertainties associated with decisions that affect the protection of human health and the environment
- Increasing public confidence, because accreditation is a recognisable mark of approval
- Eliminating redundant reviews and improving the efficiency of the assessment process (which may reduce costs)

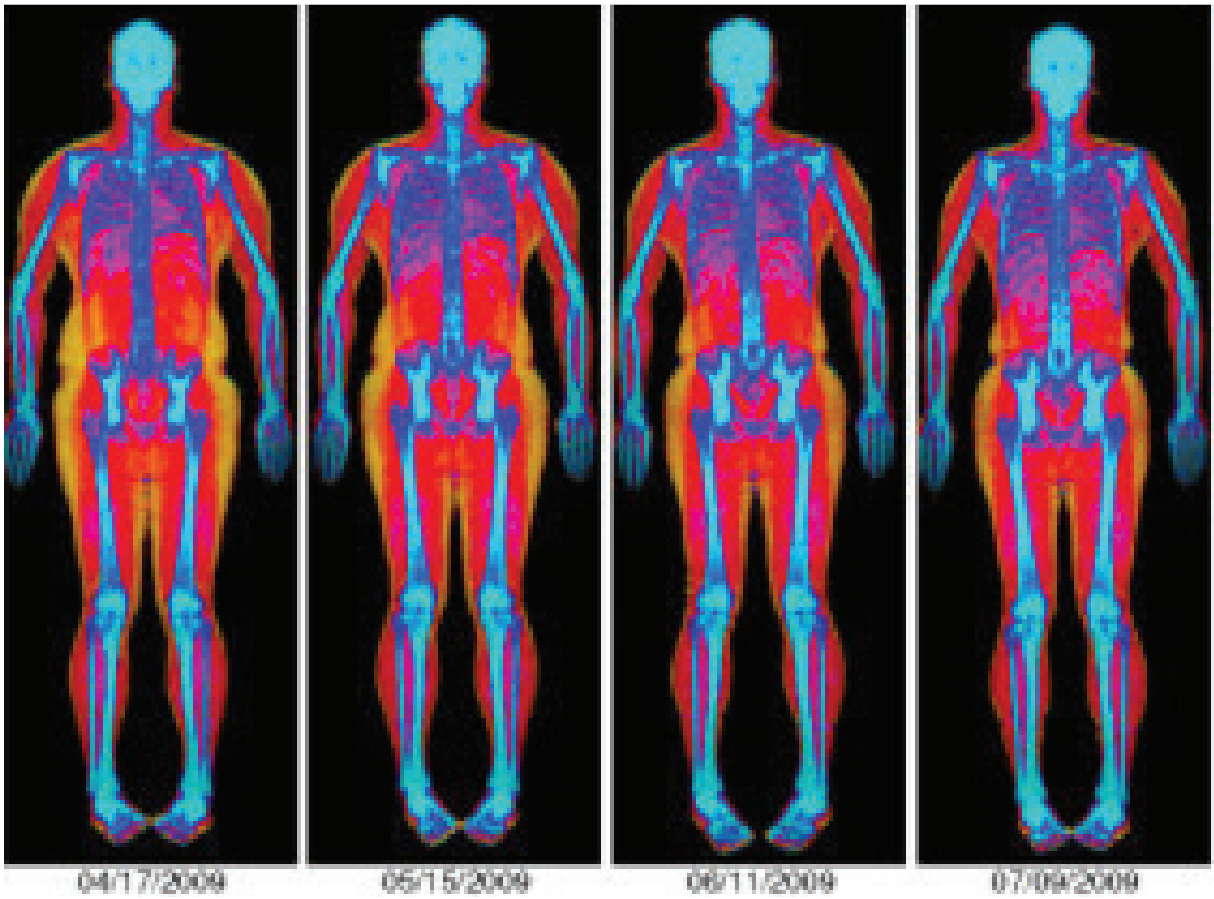
Using an accredited laboratory also increases confidence that:

- Decisions regarding multiple facilities are based on comparable data
- Costs associated with laboratory problems, including re-testing, re-sampling, and lost time are minimised
- False positives and negatives, which can directly affect compliance with regulations, are minimised

Potential Hazards to one's health when using non-accredited lab

Reporting a wrong result can have potentially devastating effects on the patient. For example, one patient could receive wrong medical or surgical treatment while another doesn't get the treatment he or she needs. Either situation can result in severe, irreversible consequences.

BODY MASS COMPOSITION



Village Imaging Centre
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Body Composition Analysis – What Is It And Why Do We Use It?

Body composition analysis involves a series of tests to measure the ratio of different tissues that our bodies are currently made up of. These tests can be an eye-opening experience because they reveal the following: the ratio of fat to lean muscle tissue, the percentage of water in the body and the body mass index (BMI). When muscle tissue increases through proper exercise and nutrition, all of these numbers change.

Measuring the Important Things

A body composition analysis can be especially helpful for those wanting to get in better shape, since exercise's most direct result is not weight loss, but fat loss. The healthier body composition that results from exercises means an increased percentage of muscle as opposed to fat in the body. One should not care too much about the actual amount of kilos lost, so do not set goals based on weight. What you should care about is how much of your body weight is fat, and how much is muscle.

Are you in the normal range?

Determining lean body mass is another form of body composition analysis. Lean body mass is simply the portion of your body's weight that is not fat. This includes any non-fat tissue, muscle and bone.

Healthy women should generally have a lean body mass of between 79 and 86 percent of their body weight. Healthy women between the ages of 30 and 50 should have a lean body mass between 77 and 85 percent of their total body mass, while healthy women over the age of 50 should have a lean body mass between 75 and 84 percent of their total body mass. Healthy men's lean body mass should generally be between 85 and 91 percent of their body weight. Those between 30 and 50 years old should have a lean body mass between 83 and 89 percent, while those over 50 should have a lean body mass between 81 and 88 percent of their total body mass.Whether you are overweight or of normal body weight you should be aware of the impact body composition has on your health. Even if your scale weight is within a normal range, you can still have unhealthy or altered body composition.

TO PAGE 11

BODY MASS COMPOSITION

FROM PAGE 10

What is unhealthy body composition?

This refers to carrying too much or excess body fat in comparison to your lean muscle mass. As your body fat-to-lean ratio increases, so does your health risks. In fact, more often than not an unhealthy body composition can lead to obesity, a condition associated with many critical health concerns, including some of the following:

- Heart disease
- Stroke
- High blood pressure
- High Cholesterol
- Type 2 diabetes
- Certain forms of cancer
- Excess fatigue

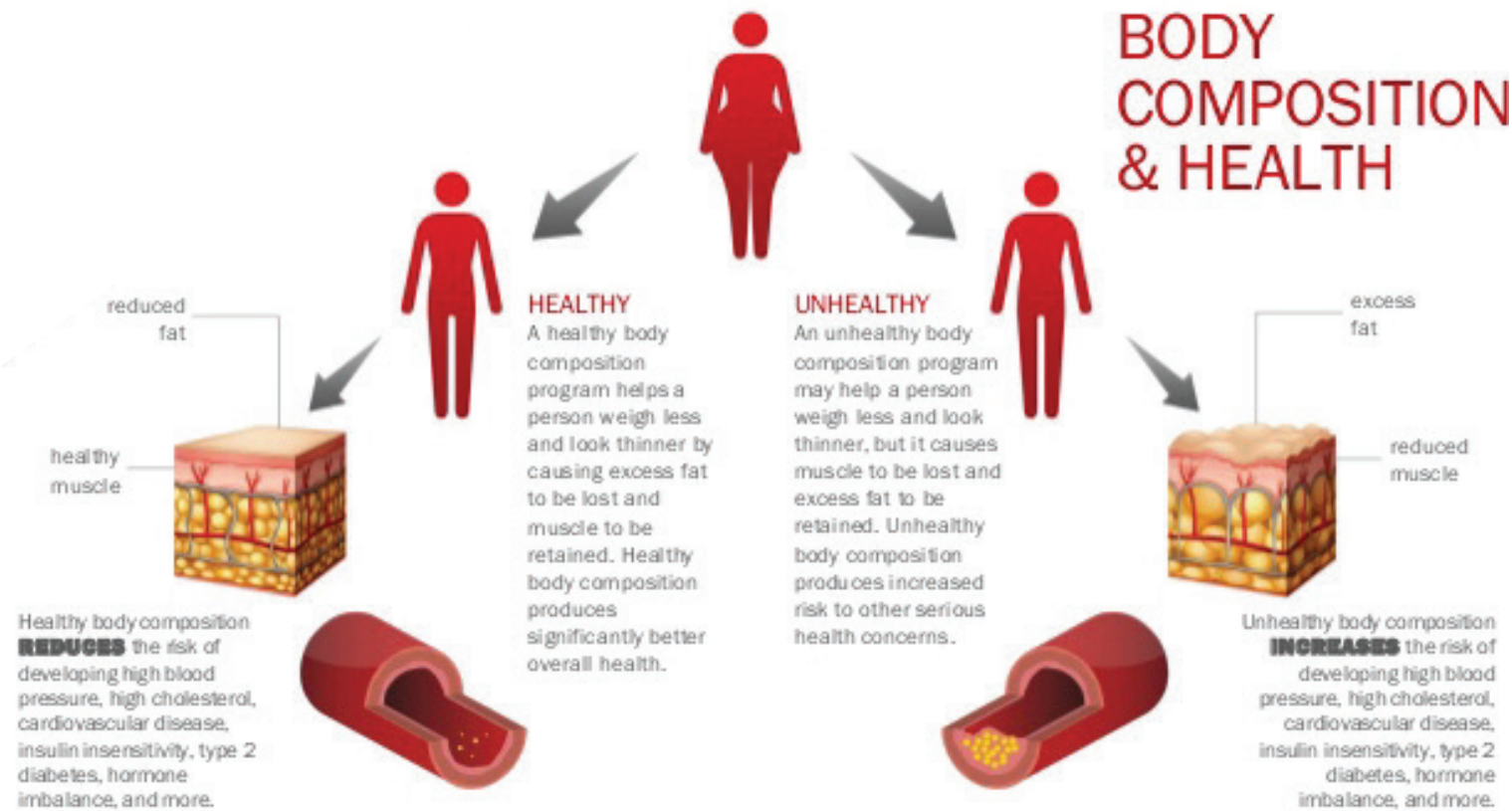
Some Factors that Contribute to Unhealthy Body Composition:

- A high-fat, high-sugar diet
- Lack of exercise
- Overeating
- Excess alcohol intake

Did you know?

- Overweight adolescents have a 70% chance of becoming overweight or obese adults.
- Approximately 47% of those who are overweight and 71% of those who are obese have high blood pressure.
- Half of all overweight and obese adults have cholesterol levels higher than they should
- About 70% of people with type 2 diabetes are overweight.

Article by: Prof Bhagat



WHAT IS HEPATITIS?

Hepatitis refers to an inflammatory condition of the liver. It's commonly caused by a viral infection, but there are other possible causes of hepatitis. These include autoimmune hepatitis and hepatitis that occurs as a secondary result of medications, drugs, toxins, and alcohol. Autoimmune hepatitis is a disease that occurs when your body makes antibodies against your liver tissue.

Your liver is located in the right upper area of your abdomen. It performs many critical functions that affect metabolism throughout your body, including:

- bile production, which is essential to digestion
- filtering of toxins from your body
- excretion of bilirubin (a product of broken-down red blood cells), cholesterol, hormones, and drugs
- breakdown of carbohydrates, fats, and proteins
- activation of enzymes, which are specialized proteins essential to body functions
- storage of glycogen (a form of sugar), minerals, and vitamins (A, D, E, and K)
- synthesis of blood proteins, such as albumin
- synthesis of clotting factors

According to the Centers for Disease Control and Prevention (CDC), approximately 4.4 million Americans are currently living with chronic hepatitis B and C. Many more people don't even know that they have hepatitis. Treatment options vary depending on which type of hepatitis you have. You can prevent some forms of hepatitis through immunizations and lifestyle precautions.

The 5 types of viral hepatitis

Viral infections of the liver that are classified as hepatitis include hepatitis A, B, C, D, and E. A different virus is responsible for each type of virally transmitted hepatitis. Hepatitis A is always an acute, short-term disease, while hepatitis B, C, and D are most likely to become ongoing and chronic. Hepatitis E is usually acute but can be particularly dangerous in pregnant women.

Hepatitis A

Hepatitis A is caused by an infection with the hepatitis A virus (HAV). This type of hepatitis is most commonly transmitted by consuming food or water contaminated by feces from a person infected with hepatitis A.

Hepatitis B

Hepatitis B is transmitted through contact with infectious body fluids, such as blood, vaginal secretions, or semen, containing the hepatitis B virus (HBV). Injection drug use, having sex with an infected partner, or sharing razors with an infected person increase your risk of getting hepatitis B. It's estimated by the CDC that 1.2 million people in the United States and 350 million people worldwide live with this chronic disease.

Hepatitis C

Hepatitis C comes from the hepatitis C virus (HCV). Hepatitis C is transmitted through direct contact with infected body fluids, typically through injection drug use and sexual contact. HCV is among the most common bloodborne viral infections in the United States. Approximately 2.7 to 3.9 million Americans are currently living with a chronic form of this infection.

Hepatitis D

Also called delta hepatitis, hepatitis D is a serious liver disease caused by the hepatitis D virus (HDV). HDV is contracted through direct contact with infected blood. Hepatitis D is a rare form of hepatitis that only occurs in conjunction with hepatitis B infection. The hepatitis D virus can't multiply without the presence of hepatitis B. It's very uncommon in the United States.

Hepatitis E

Hepatitis E is a waterborne disease caused by the hepatitis E virus (HEV). Hepatitis E is mainly found in areas with poor sanitation and typically results from ingesting fecal matter that contaminates the water supply.

Causes of noninfectious hepatitis

Alcohol and other toxins

Excessive alcohol consumption can cause liver damage and inflammation. This is sometimes referred to as alcoholic hepatitis. The alcohol directly injures the cells of your liver. Over time, it can cause permanent damage and lead to liver failure and cirrhosis, a thickening and scarring of the liver. Other toxic causes of hepatitis include overuse or overdose of medications and exposure to poisons.

Autoimmune system response

In some cases, the immune system mistakes the liver as a harmful object and begins to attack it. It causes ongoing inflammation that can range from mild to severe, often hindering liver function. It's three times more common in women than in men.

Common symptoms of hepatitis

If you have infectious forms of hepatitis that are chronic, like hepatitis B and C, you

TO PAGE 13

WHAT IS HEPATITIS?

FROM PAGE 12

may not have symptoms in the beginning. Symptoms may not occur until the damage affects liver function.

Signs and symptoms of acute hepatitis appear quickly. They include:

- fatigue
- flu-like symptoms
- dark urine
- pale stool
- abdominal pain
- loss of appetite
- unexplained weight loss
- yellow skin and eyes, which may be signs of jaundice

Chronic hepatitis develops slowly, so these signs and symptoms may be too subtle to notice.

How hepatitis is diagnosed

History and physical exam

To diagnose hepatitis, first your doctor will take your history to determine any risk factors you may have for infectious or noninfectious hepatitis. During a physical examination, your doctor may press down gently on your abdomen to see if there's pain or tenderness. Your doctor may also feel to see if your liver is enlarged. If your skin or eyes are yellow, your doctor will note this during the exam.

Liver function tests

Liver function tests use blood samples to determine how efficiently your liver works. Abnormal results of these tests may be the first indication that there is a problem, especially if you don't show any signs on a physical exam of liver disease. High liver enzyme levels may indicate that your liver is stressed, damaged, or not functioning properly.

Other blood tests

If your liver function tests are abnormal, your doctor will likely order other blood tests to detect the source of the problem. These tests can check for the viruses that cause hepatitis. They can also be used to check for antibodies that are common in conditions like autoimmune hepatitis.

Ultrasound

An abdominal ultrasound uses ultrasound waves to create an image of the organs within your abdomen. This test allows your doctor to take a close at your liver and nearby organs. It can reveal:

- fluid in your abdomen
- liver damage or enlargement
- liver tumors
- abnormalities of your gallbladder

Sometimes the pancreas shows up on ultrasound images as well. This can be a useful test in determining the cause of your abnormal liver function.

Liver biopsy

A liver biopsy is an invasive procedure that involves your doctor taking a sample of tissue from your liver. It can be done through your skin with a needle and doesn't require surgery. Typically, an ultrasound is used to guide your doctor when taking the biopsy sample.

This test allows your doctor to determine how infection or inflammation has affected your liver. It can also be used to sample any areas in your liver that appear abnormal.

Other immune suppressing drugs like mycophenolate (CellCept), tacrolimus (Prograf) and cyclosporine (Neoral) can also be used as alternatives to azathioprine for treatment.

Tips to prevent hepatitis

Hygiene

Practicing good hygiene is one key way to avoid contracting hepatitis A and E. If you're traveling to a developing country, you should avoid:

- local water
- ice
- raw or undercooked shellfish and oysters
- raw fruit and vegetables Hepatitis B, C, and D contracted through contaminated blood can be prevented by:
- not sharing drug needles
- not sharing razors
- not using someone else's toothbrush
- not touching spilled blood

Hepatitis B and C can also be contracted through sexual intercourse and intimate sexual contact. Practicing safe sex by using condoms and dental dams can help decrease the risk of infection.

Vaccines

The use of vaccines is an important key to preventing hepatitis. Vaccinations are available to prevent the development of hepatitis A and B. Experts are currently developing vaccines against hepatitis C. A vaccination for hepatitis E exists in China, but it isn't available in the United States.

Complications of hepatitis

Chronic hepatitis B or C can often lead to more serious health problems. Because the virus affects the liver, people with chronic hepatitis B or C are at risk for:

- chronic liver disease
- cirrhosis
- liver cancer

When your liver stops functioning normally, liver failure can occur.

Complications of liver failure include:

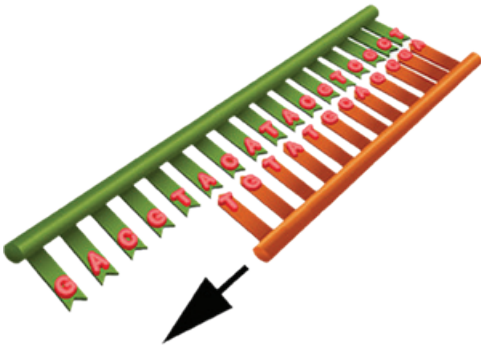
- bleeding disorders
- a buildup of fluid in your abdomen, known as ascites
- increased blood pressure in portal veins that enter your liver, known as portal hypertension
- kidney failure
- hepatic encephalopathy, which can involve fatigue, memory loss, and diminished mental abilities due to the buildup of toxins, like ammonia, that affect brain function
- hepatocellular carcinoma, which is a form of liver cancer
- death

People with chronic hepatitis B and C are encouraged to avoid alcohol because it can accelerate liver disease and failure. Certain supplements and medications can also affect liver function. If you have chronic hepatitis B or C, check with your doctor before taking any new medications.

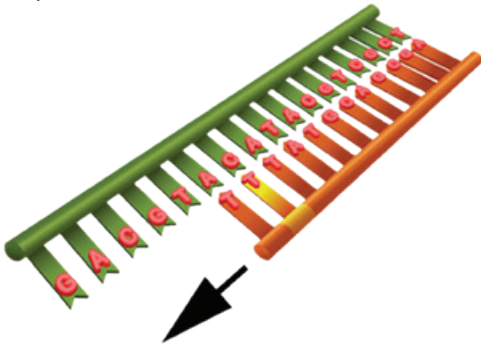
Source: http://www.healthline.com/health/hepatitis

COMING SOON – GENOVERSE TESTING

Genoverse is the first truly personalised genetic test, custom-tailored to male and female risk markers from more than 30 ethnic origins. Genoverse is based on over 1000 scientific studies covering more than 100,000 people, giving you the most reliable information about your genetic risk. There are 26 letters of the alphabet, and in DNA there are four, namely A, T, C and G. The letters can form infinite combinations of words and infinite sentences can be written, and so it applies that 4 gene characters like (ATCG) combine into words and form sentences that give rise to multiple and different characteristics in terms of life forms. The correct combinations are required in order to function properly. This is very similar to the way our alphabet works. For example, changing the "c" in cat to a "b" gives you a very different image, one letter change in a genetic sequence can have a dramatic effect on an individual.
The sequence that should be,

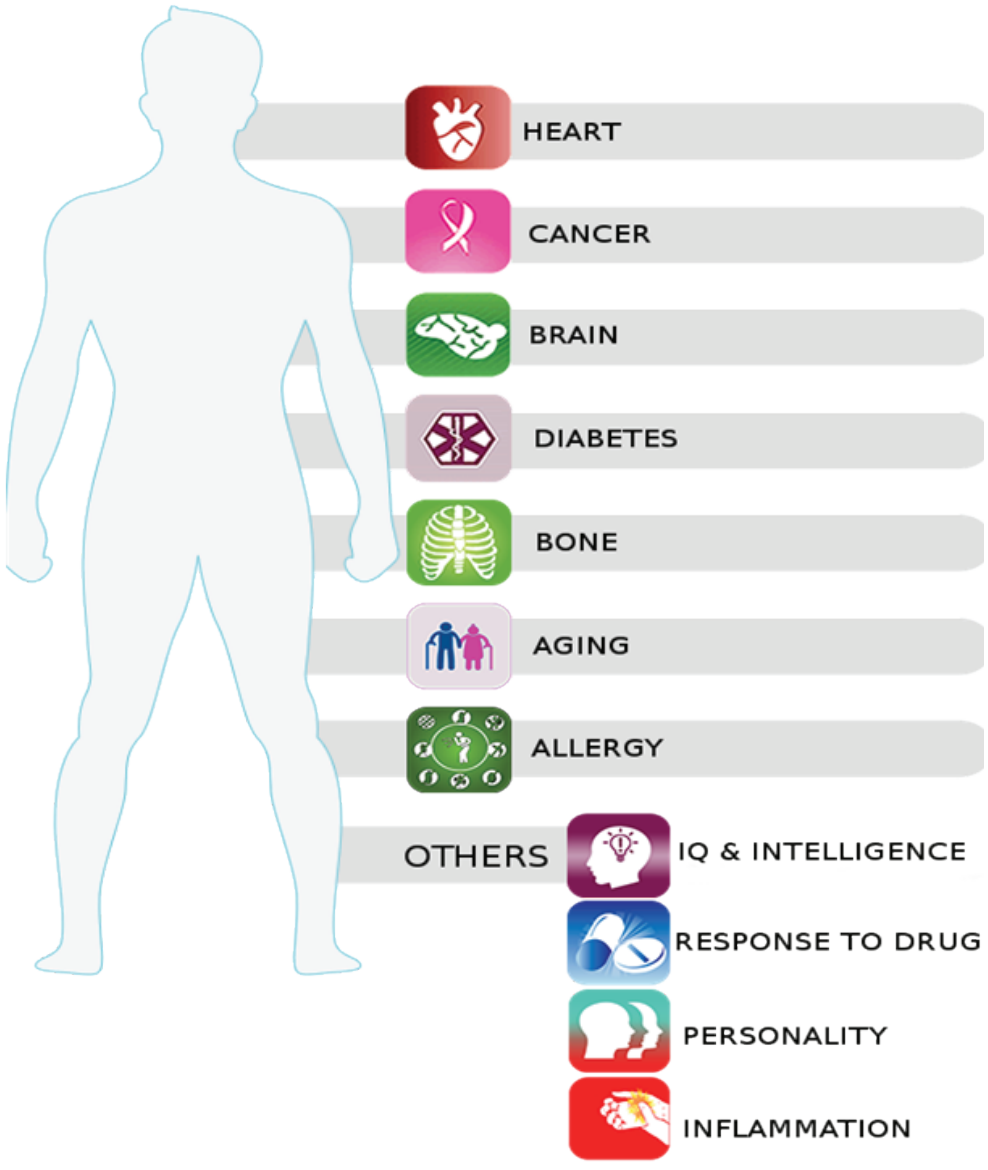


May be altered to...



This type of difference is called a Single Nucleotide Polymorphism or SNP. Most SNPs are harmless, but sometimes SNPs can occur in important functional regions of our DNA. Such SNPs can cause disease or be associated with an increased risk of developing a disease. The genetic risk score is calculated on the basis of presence or absence of SNPs. It is hoped Genoverse will serve as a powerful solution for everyone to assess and manage their risks of developing certain diseases, and outsmart their genetic destiny!

Tests For Men

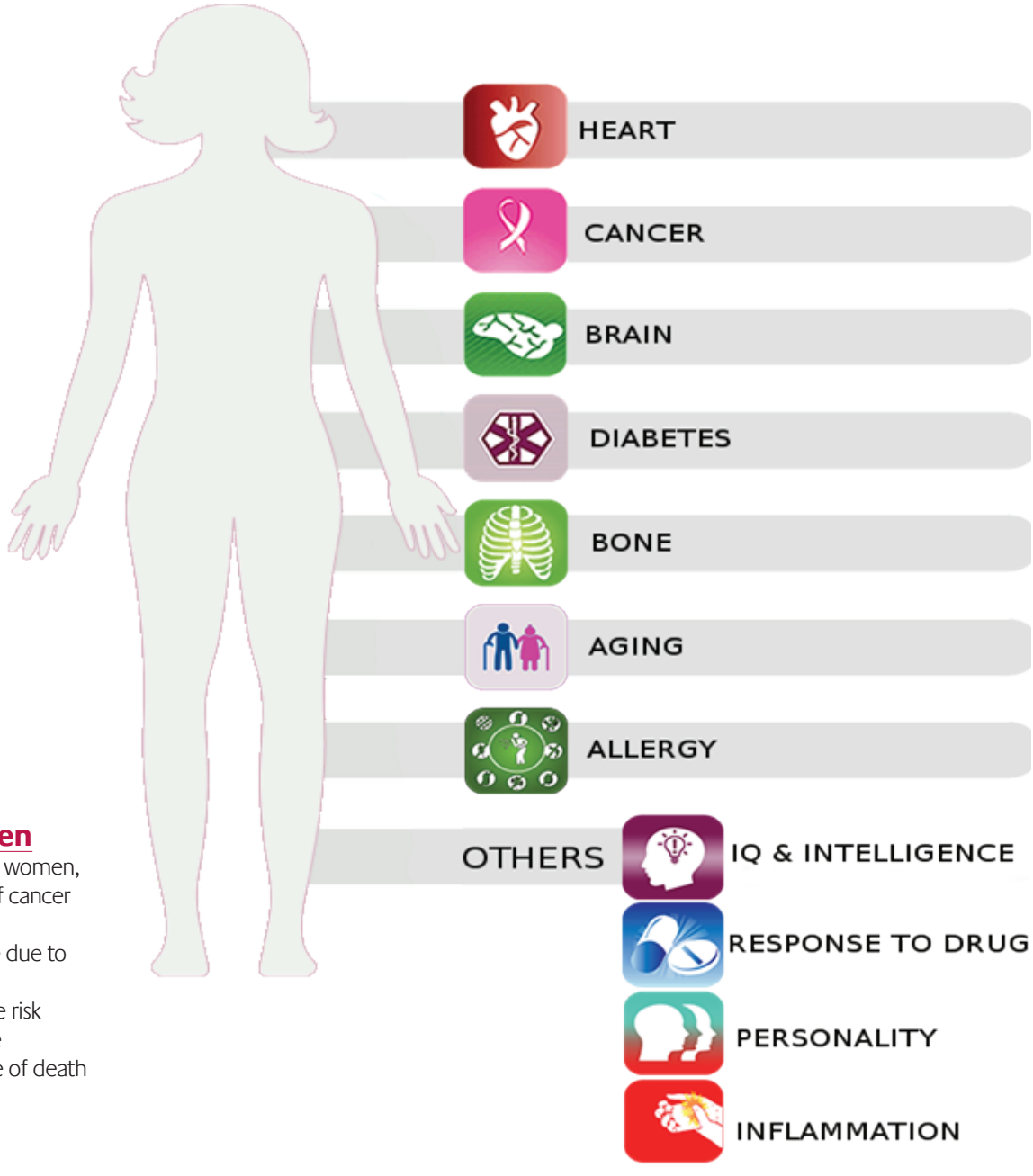


Quick facts about men

- Men usually develop heart disease 10 to 15 years earlier than women
- Between 70% and 89% of sudden cardiac events occur in men
- According to the U.S. Centers for Disease Control and Prevention (CDC) the leading causes of cancer death in men are lung cancer, prostate cancer and colorectal cancer
- About 1 man in 7 will be diagnosed with prostate cancer during his lifetime

COMING SOON – GENOVERSE TESTING

Tests For Women



Quick facts about women

- Heart disease is the No. 1 killer of women, and is more deadly than all forms of cancer combined
- One third of all female deaths are due to cardiovascular disease and stroke
- 90% of women have one or more risk factors for developing heart disease
- Breast cancer is the leading cause of death for 35-49 year old women

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DRINK LOTS OF WATER

EXERCISE AND STAY HEALTHY

DIAGNOSTICS