

DIAGNOSTICS

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Avoid the flu!

Chronic Fatigue and Immune Dysfunction Syndrome

Children's Eye Health and Safety

Life with Psoriasis

+ SKIN CARE

AUGUST IS
SPINAL
MUSCULAR
ATROPHY
AWARENESS
MONTH

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Diagnostics Update.com

Private Bag 283, Gaborone
Tel: 395-0007, Fax: 395-7980
www.diagnostics-update.com
Email: ddiagnostics@yahoo.com

Advertising Sales & Copyrighting Editor

Mothusi Jowawa

Editor:

Mothusi Jowawa
(267) 73584988 / 72199228

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. This July/August/September issue we focus more on the winter/spring season ailments. We take a look at different ways to keep healthy.

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

AVOID THE FLU!



Everyone who wants to reduce the likelihood of becoming ill with flu should be vaccinated.

When Should I Be Vaccinated?

There is no cut-off date for the flu vaccination - it can be given at any stage during winter, but should not be administered while you have flu. The vaccine is effective for the whole winter period.

High-risk groups who should be vaccinated

Children and teens in the high-risk group include:

- All children between the ages of six and 23 months, as their immunity levels against diseases are at their lowest and their exposure rate is increased if they attend a crèche;
- School-aged children are two to three times more likely than adults to get flu and to rapidly

- spread the virus to others; studies have shown that families with school-aged children are more prone to infections than other families;
- All children who have chronic heart or lung disorders, including asthma;
- All children who have chronic illnesses, as well as those who have required hospitalisation or regular visits to the doctor during the preceding year;
- All children who live with someone in a high-risk group; and
- All children and teenagers (from six months to 18 years old) on long-term aspirin therapy.

Adults in the high-risk group include:

- People who have required regular visits to the doctor or have been hospitalised during the preceding year due to chronic illnesses;
- Women in their second and third trimester of pregnancy - pregnancy can increase the risk of serious medical complications from flu;
- Pregnant women in their first trimester if they

- have a medical condition that increases their risk of developing complications;
- Anyone with a respiratory problem, such as asthma or emphysema;
- Persons in close contact with any high-risk individual;
- People planning to travel to the tropics at any time or to the northern hemisphere between October and February;
- Anyone with other chronic illnesses, such as anaemia, diabetes or kidney failure;
- All people aged 65 and older, especially those living in retirement homes;
- Anyone with a heart problem, such as heart failure; and
- The immune suppressed, including persons with HIV infection, people who are receiving long-term corticosteroid treatment or cancer patients who are receiving radiation or chemotherapy.

THIS IS A SERIOUS AND FAIRLY COMMON MEDICAL CONDITION THAT IS EXTREMELY DEBILITATING.

CHRONIC FATIGUE AND IMMUNE DYSFUNCTION SYNDROME

What Is Chronic Fatigue Syndrome?

Chronic fatigue syndrome (CFS), which was once commonly known as 'yuppie flu', does not just cause mild fatigue, as its name might suggest. Individuals with CFS suffer extreme exhaustion and develop a variety of symptoms that can make their day-to-day lives exceedingly challenging. The condition is not psychological or 'all in the heads' of sufferers as many people once thought, scientists have established that CFS is a real medical condition. CFS can affect anyone although it is most commonly diagnosed in individuals between the ages of late 20's and 40's and in women of all ages. There are a number of similar, overlapping conditions that are often associated with CFS and it is consequently difficult to diagnose.

What causes it?

As noted above, the causes of CFS remain largely unknown. It was once thought that a virus might be behind it e.g. the contracting of a variety of viruses combined with stress, exposure to environmental toxins and a genetic predisposition. Most CFS patients also show features of depres-

sion although it is not clear whether the depression develops as a result of CFS or whether the CFS arises as result of the depression.

The symptoms of CFS

The most notable aspect of the condition is extreme fatigue, which patients will suffer from for six months or more. Sufferers may experience a wide variety of other symptoms as well including the following:

- Very poor stamina
- Withdrawal from work and social activities due to fatigue
- Loss of short term memory
- Difficulty concentrating
- Pain in the joints and muscles
- Headache
- Frequent sore throat
- Tender lymph nodes
- Mild fever
- Nausea
- Sleep that is not refreshing

Progression

CFS often starts with flu-like symptoms such as pain in the joints, headache, sore throat and mild fever and fatigue. At this point many doctors

mistake the condition for flu and CFS is not diagnosed. However, in the case of CFS the symptoms continue for far longer than one would expect from flu. CFS may continue for months or even years. Patients may find they have difficulty concentrating and remembering. In severe cases they may lack the energy to go out, see their friends or even work. They can become increasingly isolated and run the risk of developing depression.

Treatment

While CFS cannot be cured and must run its course, many of the symptoms can be treated and doctors can help to improve the patient's quality of life. Symptoms including sleep disorders, nausea, pain, flu-like symptoms, depression and anxiety can be treated with medications. Supportive therapies such as counselling can teach people coping skills.

Visit your doctor

CFS is a real medical condition that can devastate lives. It is important that it is diagnosed so that the patient can be assisted and symptoms treated. Those individuals suffering from extreme fatigue and some of the symptoms described above for an extended period of time should therefore be sure to visit their doctor.



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Multiple Micronutrients Can Help You Get Pregnant And Stay PREGNANT

In November 2011 London University and Vitabiotics completed a clinical study to show that adequate nutrition and supplementation can improve the chances of falling pregnant by 60%.

Fertility rate is affected by a number of lifestyle factors such as **BODYWEIGHT, STRESS, SMOKING, ALCOHOL, CAFFEINE, RECREATIONAL DRUGS AND NUTRITION**. However, although there had been evidence that folate (folic acid supplementation) prevents neural-tube defects; evidence of the impact of multi micro nutrient nutrition on fertility, did not conclusively exist.

It is easy to acquire the necessary macronutrients like carbohydrates and proteins from ones diet, but the same does not apply to micronutrients. Researcher Dr Rina Agrawal says deficiencies in macronutrients may occur from a number of environmental factors, including the way foods are processed, soil depletion, over farming and prolonged storage. In light of this, micronutrient deficiencies have been associated with infertility, birth defects and miscarriages. It is important to know this study was run on women from good socioeconomic backgrounds, showing that micro-nutrient deficiencies are not only a result of poor nutrition.

Subfertility is defined by the Marriam-Webster dictionary as: the condition of being less than normally fertile though still capable of effecting fertilization. The most common causes of subfertility are the failure to ovulate or unexplained subfertility.

Numerous regimens are used to treat failure to ovulate; these treatments are commonly supplemented with folic acid. This study shows that adjunct therapy with multi micro vitamins such as, **VITAMIN B1; B2; B3; B6 AND B12; VITAMIN A; C;D; MAGNESIUM; PHOSPHOROUS; SODIUM; POTASSIUM; CHLORIDE; IRON; ZINC; COPPER; SELENIUM; IODINE; VITAMIN E AND K...** (available in Pregnacare conception), led to an increase in women's chances of falling pregnant. It also showed a significant reduction in the number of attempts made to fall pregnant once on treatment; in comparison to supplementation with folic acid only.

Agrawal says there is an established relationship between micronutrient and the different stages of pregnancy. N-acetylcysteine aids in healthy cervical secretion, increasing the chances of conception. 60 percent more women on multi micronutrients stayed pregnant compared to patients on folic acid only. L-Arginine, improves follicular and endometrial blood flow, assisting increasing the reproductive organs access to nutrients. Zinc, iron and magnesium are important in cell division and neural-tube development; all assisting in decreasing the chances of miscarrying and birth defects.

It is important to understand that micro nutrient nutrition must be accompanied by other lifestyle factors and appropriate ovulation-induction regimens to significantly increase one's chances of falling pregnant. Diet, physical activity, weight control and reduced stress are amongst the many factors that need to be monitored.



Expectant Families Are Encouraged to Learn More About Cord Blood Before the Birth of Their Babies

Cord blood is obtained from your baby's umbilical cord by the delivering physician or health care provider moments after the birth. **Cord blood** is a rich source of hematopoietic stem cells, which have the ability to develop into various types of blood cells. These cord blood stem cells may be used in bone marrow transplantation. Ongoing clinical research suggests that cord blood stem cells may potentially offer therapy in an ever increasing list of diseases and disorders such as Cerebral Palsy, Type 1 Diabetes and Spinal Cord Injury. After the birth of the baby, the **cord blood collection** process is a simple and safe procedure that requires approximately five minutes to complete.

Children's Eye Health and Safety

Children with vision problems don't always speak up about their problems, and often times it will come across as misbehaving in class or poor showings in the classroom. A regular eye exam can eliminate many of these issues and help your children to focus on the chalkboard, and not the fact they can't see the board.

Infants and Eye Screenings

Children should have regular eye exams, regardless of age. It is suggested that children under the age of five should be regularly screened to catch early vision problems. Parents are encouraged to have their newborn's eyes checked before they leave the hospital. These early screenings can help catch congenital eye problems, which can create problems down the road. Many of these problems can be corrected with glasses.

Children and Eye Screenings

It is thought that as children, we have perfect vision, but this is not always the case. Since vision changes as we age, children should be receiving eye exams to monitor any changes and developments of vision. With each pediatric annual check, your children should also be scheduled to receive an eye examination to ensure that no vision problems or congenital eye problems exist.

Vision does change every year, so it is important to schedule these exams, to catch any negative changes to sight. If vision has decreased, corrective glasses may be necessary. Most times, children will begin to perform poorly in school or act out when in class. In the past, teachers and parents have attributed this behavior to laziness or disinterest in school, or even to learning

disabilities. However, in recent years, more and more of these instances are being attributed to poor vision quality. A regular eye exam will help identify the problem, if the problem is indeed vision related. Eye exams and corrective eye wear can help the overall eye health of your children and help their performance in school as well.

Teenagers and Eye Screenings

Teenagers are not exempt from these screenings either. Teenagers should have their eye exams each year before the start of term. Since teenagers are more active in sports, eye injuries increase and can potentially cause eye damage, leading to vision loss. Optometrists suggest that children and teens who participate in sports where protective eyewear to prevent unnecessary eye injury that can permanently damage the eye and cause vision loss. In fact, children and adults should get regular eye exams to monitor the overall health of the eye and if there is any potential vision distortions. When scheduling your child's physicals, be sure to schedule an eye exam for them. This will help to maintain your child's overall eye health and help prevent vision loss down the road.



Eye health is important because a child who has problems paying attention in class simply may be a result of the student having trouble seeing, not because they don't want to learn.

Visually impaired students may get easily frustrated during class thus giving up on their school work. Why would they want to try and do something if they are not able to see what is going on? If there is a problem, often times students won't say anything either because of embarrassment of needing glasses or they may not feel socially confident. This

may cause them to struggle in school, sports, and especially in reading.

Signs of Eye Problems

Knowing that your child has good eye health and is not visually impaired is sometimes hard to know. If a child has had bad eyesight since birth they may not notice the difference and therefore are not prone to saying anything. It is up to you as a parent to notice the signs of poor eyesight and get children an annual eye test with an optometrist. Here are some common signs you may observe if your child has eye problems or any eye conditions that need to be addressed.

- Squinting
- Constant blinking
- Seeing double
- One eye turning in
- Rubbing the eyes constantly
- Losing focus easily when they are reading
- Getting frequent headaches
- Constantly losing their place when reading

Some of you may be wondering what is visually impaired? Being visually impaired can range from having a partial problem in seeing to blindness. Some people are born with it and others become sight impaired over time. Still others may have suffered eye injuries or diseases of the eyes that caused vision problems.

Keeping Your Child's Eyes Healthy

In my preschool, I had a three year old that was constantly squinting in class, but never complained that he couldn't see. His parents took him to the eye doctor for an eye exam and sure enough they found out that he was visually impaired and needed glasses. When he came to school for the first time wearing his glasses I asked if he could see better and he said "Everything is SOOOOO crisp now First I started laughing because of the word he used to describe how well he could see; and then I smiled from ear to ear knowing that he was so excited to see like his other friends. Instead of the glasses giving him a complex like most people may think; it did the complete opposite. He was more confident. He was just happy to see and nothing else mattered. All the kids thought he was so cool because he got to wear glasses and even a few kids went home asking to get glasses, too. Not to mention he sure looked cute in them.

TO PAGE 7

As your child gets older you need to stay up on their eye exams. By age 10, the percentages drops on nearsighted. This is awesome, however your child may be that small percent much like our oldest. We took her for her yearly eye exam when she was 12 and found out that she had a slight astigmatism. We thought this was odd since her father and I have perfect 20/20 vision. So don't think because your eyesight is good that your child's will be good, too. We are living proof that it isn't always true. Now by the age of 15, they change again and the percentages rise respectively. It is very important to have annual eye exams to make sure your child is seeing correctly.

The eyes are very complex and need to be protected at all times to prevent eye injury. With children that can be difficult since they just love to be rough and tough; and they have no fear. There are several different kinds of eye injuries and diseases that can cause a child to become blind or sight impaired. The most common injuries that your child may get is a scratch to the eye or eyelid or maybe a black eye, which is usually caused by innocent playing and not paying attention to what they are doing. More extreme injuries include a scratch or injury to the cornea called corneal abrasion, a lodged object into the eye, hyphema or blood in the front part of the eye, a broken bone surrounding the eye, chemical burns, or long term UV radiation. Some of the more extreme injuries can be prevented if you teach children about eye protection and you are more cautious at an early age.

Here are some suggestions that may help.

- Wear glasses when in the sun.
- Wear safety goggles if they are in the garage working with someone. (They will think its cool and grown-up.)
- Keep fingernails trimmed and short. (Babies are always scratching their faces and eyes.)
- Wash hands after doing art projects and crafts. (This helps keeps all chemicals and fragments out of eyes.)
- Cover sharp furniture edges with protective covers.
- Teach them not to run, but move slowly with sharp objects -- scissors, pens, pencils, etc....
- Keep them away if the someone is mowing or weed eating the yard.
- Keep away from fireworks
- Keep eyes moist with eye drops if they always seem dry

One last tip for keeping your child's eyes in tip-top shape is to take Omega-3's. It is a family of fatty acids essential to maintaining overall health and is especially important to help protect eye health.



HOW BREASTFEEDING BENEFITS YOU AND YOUR BABY

Introduction

Breast milk is best for your baby, and the benefits of breastfeeding extend well beyond basic nutrition. In addition to containing all the vitamins and nutrients your baby needs in the first six months of life, breast milk is packed with disease-fighting substances that protect your baby from illness.

Here's a look at some of the most important benefits breastfeeding offers you and your baby.

Breastfeeding protects your baby from a long list of illnesses

Numerous studies from around the world have shown that stomach viruses, lower respiratory illnesses, ear infections, and meningitis occur less often in breastfed babies and are less severe when they do happen.

Exclusive breastfeeding (meaning no solid food, formula, or water) for at least six months seems to offer the most protection. The main immune factor at work here is a substance called secretory immunoglobulin A (IgA) that's present in large amounts in colostrum, the first milk your body produces

for your baby. (Secretory IgA is present in lower concentrations in mature breast milk.) The substance guards against invading germs by forming a protective layer on the mucous membranes in your baby's intestines, nose, and throat. Your breast milk is specifically tailored to your baby. Your body responds to pathogens (virus and bacteria) that are in your body and makes secretory IgA that's specific to those pathogens, creating protection for your baby based on whatever you're exposed to.

Breastfeeding's protection against illness lasts beyond your baby's breastfeeding stage, too. Studies have shown that breastfeeding can reduce a child's risk of developing certain childhood cancers.

Scientists don't know exactly how breast milk reduces the risk, but they think antibodies in breast milk may give a baby's immune system a boost.

Breastfeeding may also help children avoid a host of diseases that strike later in life, such as type 1 and type 2 diabetes, high cholesterol, and inflammatory bowel disease. In fact, preemies given breast milk as babies are less likely to have high blood pressure by the time they're teenagers.



The Minister of Health, Hon. Rev. Dr. J G. N. Seakgosing giving a speech.



Mr. Abram looks on as his colleague Lillian tests a participant at the event



People awaiting to be tested.



On the left, Dr Bontle Mbongwe, the event's coordinator.



Diagnofirm Medical laboratories staff



The DML Public Relations Officer, Ms Botsile Badubi explains to a participant the purpose of DML at the event.

DML CONTINUES TO SUPPORT THE ANNUAL UNIVERSITY OF BOTSWANA HEALTH FAIR AND WALK

Diagnofirm Medical Laboratories was yet again supporting the annual University of Botswana Health Fair and Walk which took place on the 26th of April 2013 at the Main Mall, Gaborone. This year's theme **'I don't Want to Be a Walking Billboard for the Tobacco Industry'** is an effort to fight the tobacco industry which has identified Africa as its frontier to market its products despite provisions that prohibit tobacco advertising, promotion and sponsorship. The Anti-Tobacco Network, in collaboration with the University of Botswana's Department of Environmental Health, the Ministry of Health and the WHO Country Office organized this event.

The walk started at 0600hours and was followed by a health fair at the main mall from 0800 to 12:30hours.

The Minister of Health, Hon. Rev. Dr. John Seakgosing, was also in attendance and delivered an address.

Diagnofirm, which sponsored the event, took time to test the public that was in attendance for blood pressure and random glucose.

Dml Staff Member Shines At Football Tournament

He walked into the office with a spring on his step. You could see victory written on his face. Mr. Peter Mabula, Head of Logistics at Diagnofirm Medical Laboratories. Mabula arrived at the office that Monday morning carrying not just a medal, but also a trophy for *Top Goal Scorer* in a tournament hosted by Kanye local football team; Kanye Masters.

The tournament, which is organized annually to raise funds for orphans in Kanye, took place on 28th of April 2013 in Kanye. Peter, who

plays for North Great Tigers, a Sunday soccer team, scored a total of 5 goals during this competition that was entered by four football teams.

Mabula, who started playing soccer from childhood, has played for teams like Botswana Vaccine Institute Football Club, North Stars, and Sikwane Wizard. His greatest achievement in football is having played in the premier league for soccer giants, Mochudi Centre Chiefs, from the year 2003 to 2005.

Upon retiring from profes-

sional football, Peter started playing Sunday soccer to keep fit. He currently plays for North Great Tigers, and is also a coach for first division team, North Stars in Broadhurst. Many football fanatics know him by his nicknames **'Tony Ilidigwe', 'Pitse', or 'Bullets'**

CAPTIONS

Pic 1. Mr. Peter Mabula holding his trophy and medal with Mr. Maran Senthil (The Diagnofirm Admin and Finance Manager

Pic 2. The man of the moment, Mr. Peter Mabula



REDUCE YOUR GLUCOSE-NATURALLY..!!

D diabetes is becoming a major health concern in our world day by day. According to WHO, about 347 million people are affected with diabetes worldwide and diabetes will be the 7th leading cause of death in 2030.

WHAT IS DIABETES?

As we all know, diabetes is a condition where the sugar level in the blood rises above normal and it can cause serious health hazards in the body if left uncontrolled.

How it happens?

The main villain of the diabetes is pancreas inside our body. The glucose regulating hormone—"insulin" which is produced by the pancreas is either absent or insufficient or it cannot be used properly by the body for controlling blood sugar, which eventually leads to diabetes. According to this, the diabetes is classified as Type 1 diabetes and Type 2 diabetes.

1.Type 1 diabetes (Insulin- dependant diabetes)-IDDM

This happens when the body fails to produce insulin due to loss of the insulin-producing beta cells of pancreas or due to any autoimmune activities. The solution for this is to inject insulin or use an insulin pump. Mostly IDDM can be seen and diagnosed in childhood itself and so it is also called as juvenile diabetes. This is seen in only in 10% of cases.

2.Type 2 diabetes (Non Insulin- dependant diabetes)-NIDDM

Type 2 DM happens when body cells cannot use the produced insulin and it is called as insulin resistance. This inability of insulin is believed to be due to defects in the insulin receptor cells in the body. The specific defects are still unknown to the science!! Type 2 diabetes is the most common type in adults and 90% of diabetes cases are type

3.Gestational diabetes

This is the diabetes seen during pregnancy. It occurs in about 2–5% of all pregnancies and may improve or disappear after delivery. About 20–50% of affected women develop type 2 diabetes later in life.

How do I know I am diabetic?

The classical symptoms of diabetes are as follows:

Polyuria (frequent urination),

polydipsia (increased thirst)

polyphagia (increased hunger).

It can be associated with loss of weight, lethargy, weakness etc.

What are the complications of diabetes?

Over time, diabetes can damage the heart, blood vessels, eyes, kidneys, and nerves.

Diabetes increases the risk of heart disease and stroke. 50% of people with diabetes die of cardiovascular disease (primarily heart disease and stroke)

Combined with reduced blood flow, neuropathy (nerve damage) in the feet increases the chance of foot ulcers, infection and eventual need for limb amputation.

Diabetic retinopathy is an important cause of blindness, and occurs as a result of long-term accumulated damage to the small blood vessels in the retina. One percent of global blindness can be attributed to diabetes.

Diabetes is among the leading causes of kidney failure.

How do I manage my diabetes naturally?

If you are diagnosed with diabetes, it is very important to regulate your blood sugar in healthy level always. Always use the "DEM" (Diet, Exercise, and Medicine) method to control your diabetes.

Here are some tips to manage your blood sugar in natural ways:

DIET:

As all of us know, reduce sugar in diet, use low carbohydrate, low fat food and increase the use of dietary fiber in the food.

Rather than taking 3 meals per day, make it frequent small meals in 5-6 times per day so that the digestive system will not get overcrowded and blood sugar will not rise all of a sudden.

Alternatives for sugar

Don't worry, if you can't use sugar in diet, there are a plenty of natural alternatives for sugar with low Glycemic Index (GI).

I Stevia: Stevia is a South American herb and it is 300 times sweeter than sugar. It has been used as a sweetener for centuries in South America, and in Japan. Stevia has no calories and no glycemic impact making it suitable for diabetics.

I Xylitol: Xylitol is found naturally in fibrous fruits and vegetables, corn cobs, and some hardwood trees - even our own bodies produce it. Although it does cost more than sugar, it's a healthier alternative for sugar.

I Agave nectar or syrup: Agave syrup is made from the sap of a cactus plant. It has a flavor similar to honey and is 1.5 times sweeter than sugar. Although agave has an extremely low-glycemic index, it is also higher in calories and contains more fructose than sugar.

I Coconut sugar: Coconut sugar is produced from the sap from coconut palm. It tastes similar to brown sugar. It is nutritious and has a low glycemic index.

I Yacon: Yacon is extracted from a South American tuber plant called yacon. The syrup has half the calories of sugar. It's also an excellent source of potassium, calcium, phospho-

rous, iron, 20 amino acids, and is considered a prebiotic that promotes healthy bacteria in your digestive system.

I Molasses: These are by-products of the sugar production process. Molasses is sweeter than sugar. Blackstrap molasses is a good source of iron and calcium.

I Lucuma: Lucuma powder is made from the Peruvian lucuma fruit (also called "eggfruit"), and is rich in minerals such as iron, zinc, potassium, calcium, magnesium, vitamin B3, beta carotene, and fiber. One tablespoon of white sugar contains 14 g of sugar calories, while one tablespoon of lucuma only contains 2 grams.

I Honey: Sweeter than sugar, packed with vitamins, honey also has antimicrobial properties. Honey is rich in antioxidants, enzymes, amino acids, minerals, and phytonutrients. It has a much lower-glycemic index than table sugar.

You can use barley malt syrup, brown rice syrup, maple syrup, Date sugar, fructose etc as an alternative for sugar if you are diabetic and needs sweeteners...!

How can I control my blood sugar naturally?

I Cinnamon: Cinnamon has long been reported as a good source for the treatment of diabetes; Take half teaspoon of cinnamon powder in water daily.

I Bitter Gourd:

Drink one glass of bitter melon juice in empty stomach early morning.

Take some pieces of dried bitter gourd, boil in one cup of water and consume this tea once or twice in a day.

This tea is not as bitter as the fresh juice and easier to consume.

Cut a few slices of bitter gourd and add to stir-fry dishes, especially in combination with vegetables that have a sweetish taste of their own - this will help mask their bitter taste.

I Fenugreek:

Soak the fenugreek seeds in water overnight and drink this water and chew on the seeds first thing in the morning.

Place fenugreek seeds in a skillet and dry roast using medium heat for about two minutes, with constant stirring. Allow the seeds to cool and then powder; add one teaspoon of this powder to hot or cold water and take once or twice in a day.

Boil one cup of water and add 2 tablespoons of fenugreek seeds, steep for about 10 minutes and then strain and consume the liquid. Do this twice every day to see a reduction of blood glucose levels.

When u are taking fenugreek, you should not take more than 100 grams as it will cause an upset stomach and make a person nauseated. It should not be taken with other medications, you should leave at least one hour gap with the other medications.

Avocado: Take one avocado seed and grill the seed. Slice the seed into several chunks. Add this to a pot of water and bring to boil, wait till the water turns brown. Strain the water mixture and drink when cool. Using avocados in food can reduce blood sugar.

Flax Seeds: Due to their high fibre content flaxseeds help digestion and aid in the proper absorption of fats and sugars. Consuming flax seed helps reduce a diabetic's post-prandial sugar levels.

Green Tea: Unlike other tea leaves, green tea is unfermented and is high in polyphenol content. Polyphenol is a strong antioxidant and hypo-glycaemic compound that helps control the release of blood sugars and helps the body use insulin better.

Olive Oil: Use olive oil in cooking and foods. It is found that olive oil may prevent diabetes. By using olive oil, you can also reduce your blood levels including LDL and triglycerides.

Black Seed: Take the black seed oil three different times of the day or take black seed powder with water.

Grape seed Extract: It is shown that taking grape seed extract capsules or ground grape seed can reduce blood sugar.

Fig Leaves: The diabetic should take the extract with breakfast, first thing in the morning. An additional way is to boil the leaves of the fig in some freshly filtered water and drink this as a tea.

Blueberry leaves: A decoction of the leaves of the blueberry has a long history of folk use in the treatment of diabetes.

Holy basil leaves(Tulsi): Take two to three holy basil leaves whole, or about one tablespoon full of its juice on an empty stomach.

Mushrooms: Research has shown the Maitake mushroom (Grifola frondosa) has a hypoglycemic effect, and may be beneficial for the management of diabetes. Other mushrooms like Reishi, Agaricus blazei, Agrocybe cylindrica

and Cordyceps have been noted to lower blood sugar levels to a certain extent, although the mechanism is currently unknown.

Vitamin C and Diabetes: Researchers have found that using from 100-600mg of vitamin C daily can reduce blood sugar levels. Food supplements like chromium, alpha lipoic acid, magnesium, and homeopathic medicines like Gymnema sylvestre, Syzygium Jambolanum, Cephalandra Indica, Ginseng, Pterocarpus marsupium, Ginkgo Biloba etc can also help to reduce blood sugar which should be taken strictly under the supervision of a homeopathic or naturopathic physician.

Article By:

Dr. K R Renjith BHMS

Homeopathic physician

Health Alternatives

Gaborone, Botswana

Ph: +267 3700108/ 74052630

Email: drrenjith@healthalternatives.co.bw

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HEALTH ALTERNATIVES

Riverwalk: 3700108 Molapo: 3710045 Game City: 3932023

Website: www.healthalternatives.co.bw



IMMUNIZATION

Shots may hurt a little, but the diseases they can prevent are a lot worse. Some are even life-threatening. Immunization shots, or vaccinations, are essential. They protect against things like measles, mumps, rubella, hepatitis B, polio, diphtheria, tetanus, and pertussis (whooping cough). Immunizations are important for adults as well as children.

Your immune system helps your body fight germs by producing substances to combat them. Once it does, the immune system “remembers” the germ and can fight it again. Vaccines contain germs that have been killed or weakened. When given to a healthy person, the vaccine triggers the immune system to respond and thus build immunity.

Before vaccines, people became immune only by actually getting a disease and surviving it. Immunizations are an easier and less risky way to become immune.

- a process that increases an organism’s reaction to an antigen, thereby improving the organism’s ability to resist or overcome infection.

- technique used to induce an immune response to a specific disease in humans by exposing the individual to an antigen in order to raise antibodies to that antigen.

the process of rendering a subject immune, or of becoming immune. Called also **INOCULATION** and **VACCINATION**. The word **VACCINE** originally referred to the substance used to immunize against **SMALLPOX**, the first immunization developed. Now, however, the term is used for any preparation used in active immunization.

Active immunization stimulation with a specific antigen to promote antibody formation in the body. The antigenic substance may be in one of four forms:

- dead bacteria, as in **TYPHOID FEVER** immunization;
- dead viruses, as in the Salk **POLIOMYELITIS** injection;
- live attenuated virus, e.g., smallpox vaccine and Sabin polio vaccine (taken orally);
- toxoids, altered forms of toxins produced by bacteria, as in immunization against **TETANUS** and **DIPHTHERIA**. Since active immunization in-

duces the body to produce its own antibodies and to go on producing them, protection against disease will last several years, in some cases for life.

Active immunization is not without risks, although research supports the efficacy of immunization programs as a measure to reduce the incidence of infectious disease. Paradoxically, the more successful an immunization program and the higher the immunization rate, the more likely it becomes that a vaccine will cause more illness and injury than its target disease. Thus the risk of disease is less threatening than the risk of an adverse reaction to the vaccine that will prevent it.

Circumstances that require postponement of immunization include acute febrile illness, immunologic deficiency, pregnancy, immunosuppressive therapy, and administration of gamma globulin, plasma, or whole blood transfusion 6 to 8 weeks prior to the scheduled immunization. Because of their potential for triggering **ANAPHYLAXIS** in hypersensitive persons, all immunizing agents should be given with caution and only after a health history has been completed on the patient. Emergency equipment and drugs should be readily at hand in all clinics and other facilities where immunizing agents are administered.

Passive Immunization transient immunization produced by the introduction into the system of pre-formed antibody or specifically sensitized lymphoid cells. The person immunized is protected only as long as these antibodies remain in his blood and are active—usually from 4 to 6 weeks..

Immunization (vaccination)

- a process by which resistance to an infectious disease is induced or augmented.
- a fundamental element of preventative health care for dental workers, who should be fully immunized against influenza, hepatitis B, and all childhood diseases where a vaccine is available. See also **immunity, active**. **HIV** and **hepatitis C vaccines are not available**.

Immunization

The process of rendering a subject immune, or of becoming immune.

Active immunization

Stimulation with a specific antigen to promote an immune response. In the context of infectious diseases, the antigenic substances may include:

- Inactivated bacteria, as in **botulism** immunization;
- Inactivated viruses, as in the canine **parvovirus** vaccination;

- Live attenuated viruses, e.g. **rabies** virus
- Toxoids, chemically treated toxins produced by bacteria, as in immunization against **tetanus** and **pasteurellosis**. Any of a vast number of foreign substances may induce an active immune response.

Since active immunization induces the body to produce its own antibodies and specifically reactive cells and to go on producing them, protection against disease will last several years, in some cases for life.

Antihormone Immunization

Immunization against hormones, e.g. against androstenedione for the stimulation of ovulation in ewes, is now a commercial reality and promises to be a significant management tool in intensive animal production.

Deliberate Immunization

The administration of an immunogen, usually by injection but sometimes orally or by inhalation, for the purpose of producing immunity.

Natural Immunization

Stimulation of the immune system through exposure to antigens that have not been deliberately administered.

Passive immunization

Transient Immunization produced by the introduction into the system of pre-formed antibody or specifically reactive lymphoid cells. The animal immunized is protected only as long as these antibodies or cells remain in the blood and are active—usually from 4 to 6 weeks. The immunity may be natural, as in the transfer of maternal antibody to offspring, or artificial, passive immunity following inoculation of antibodies or immune cells.

LIFE WITH PSORIASIS

Facts

- **Psoriasis occurs when the immune system sends out faulty signals** that speed up the growth cycle of skin cells, resulting in painful red, scaly patches on the body that bleed and itch.
- **Psoriasis is not contagious.**
- **Psoriasis frequently occurs with a range of other health concerns** including diabetes, hypertension, heart attack and depression.
- **Psoriasis impacts the emotions.** Nearly 70% of people with psoriasis say their disease makes them feel self-conscious, embarrassed and helpless.
- **Up to 30 percent of people with psoriasis also develop psoriatic arthritis**, which causes pain, swelling and stiffness around the joints.
- **There currently is no cure for psoriasis.**



Certificate of Performance Excellence Report

Laboratory: Diagnostm Laboratory Services
 Gaborone, Botswana.
Attention: Mr C. Iqbal
 Director of Laboratory Services
Tel No: (+267) 71 320 331
Email: iqbal@diagnostm.co.bw
Date: 2013-06-08

Dear Mr Chand

On my recent visit to your facility it was very clear to me that your staff is proud of the service they provide your customers. There was a clear indication that your team take great care in making sure your Laboratory and the instrumentation is kept clean and in great working order.

Instrument report is on the following Abbott products:

- Architect i2000sr Serial Number ISR05788
- Architect C8000sr Serial Number C802449

Customer Maintenance Report

The data drawn from the instrument clearly indicate that there is a great effort made by the operators to make sure maintenance is adhered to and kept up to date. This has a direct impact to Instrument and Assay performance.

Architect c8000

Customer Maintenance Legend:

- 100% Pass
- Mixed Pass / Fail
- 100% Fail
- No Attempt for Maintenance
- No Data / No Connectivity

Customer Maintenance Scoring

DAILY	WEEKLY	MONTHLY	QUARTERLY	OVERALL
79	100	83	87	83

Click on any chart below to see the log details.

Architect i2000sr

Customer Maintenance Legend:

- 100% Pass
- Mixed Pass / Fail
- 100% Fail
- No Attempt for Maintenance
- No Data / No Connectivity

Customer Maintenance Scoring

DAILY	WEEKLY	OVERALL
82	97	87

Click on any chart below to see the log details.

Directors: G.S.J. Partridge, G.P. Mavunda, T.C. Feynman (S&A)



Breakdown Metrics based on a 12 Month Average:

Instrument	Serial Number	Achieved	Goal
Architect i2000sr	ISR05788	1.7	4
Architect C8000sr	C802449	2.5	5

Abbott Laboratories is proud to be in partnership with an institute as great as yours. We thank you and your staff for the great effort made to maintain and operate the instrument with great care.

Thank you for your on-going support of Abbott products.

Yours truly

Wayne Bell
 Technical Service Manager
 Abbott Diagnostics Division
 South & Sub Sahara Africa



DESIRABLE CHOLESTEROL LEVELS

Total cholesterol	Less than 170 mg/dL
Low LDL (“bad”) cholesterol	Less than 110 mg/dL
High HDL (“good”) cholesterol	35 mg/dL or higher
Triglycerides	Less than 150 mg/dL

Preventive guidelines for cholesterol screening among young adults differ, but experts agree on the need to screen young adults who have other risk factors for coronary heart disease: obesity, smoking, high blood pressure, diabetes, and family history

Less than half of young adults who have these risk factors don't get cholesterol screening even though up to a quarter of them have elevated cholesterol. ⁶ A simple blood test called a lipoprotein profile can measure your total cholesterol levels, including LDL (low-density lipoprotein, or “bad” cholesterol), HDL (high-density lipoprotein, or “good” cholesterol), and triglycerides. The following chart shows optimal lipid levels for adults

Can children and adolescents have high cholesterol?

Yes. High cholesterol can develop in early childhood and adolescence, and your risk increases as your weight increases.

- It is important for children over 2 years of age to have their cholesterol checked, if they are overweight/obese, have a family history of high cholesterol, a family history of heart disease, diabetes, high blood pressure, or certain chronic condition (chronic kidney disease, chronic inflammatory diseases, congenital heart disease, and childhood cancer survivorship. The National Cholesterol Education Program has developed specific recommendations about cholesterol treatment for people at increased risk, such as those with a family history of high cholesterol or heart disease.

If you have high cholesterol,



what can you do to lower it?

Your doctor may prescribe medications to treat your high cholesterol.⁵ In addition, you can lower your cholesterol levels through lifestyle changes:

- Low-fat and high-fiber food (Eat more fresh fruits, fresh vegetables, and whole grains).
- For adults, getting at least 2 hours and 30 minutes of moderate or 1 hour and 15 minutes of vigorous physical activity a week. For those aged 6-17, getting 1 hour or more of physical activity each day.
- Maintain a healthy weight.
- Don't smoke or quit if you smoke.

HEART DISEASE AND STROKE PREVENTION PROGRAM

These programs promote policy and system level changes at the state and community level to support heart-healthy and stroke-free living and working conditions.

WISEWOMAN

The WISEWOMAN program helps women with little or no health insurance reduce their risk for heart disease, stroke, and other chronic diseases. The program helps women aged 40 to 64 years quit smoking, improve their diet, and increase physical activity. WISEWOMAN also offers tests for high blood pressure, high cholesterol, and diabetes. [Lipid Standardization Program](#)

Doctors require accurate measurements to diagnose and properly treat people with high cholesterol levels. The laboratory helps ensure the quality of cholesterol measurements made annually world wide.

SKIN CARE

To keep your face looking as youthful as possible, you need to proper skin care. Here I show you how to properly cleanse, exfoliate and moisturize your skin. The Basic 4-Step Skincare Regimen including organic skincare tips for the growing number of you who are concerned with putting only natural, organic products on your skin.

Skin care: 5 tips for healthy skin
Good skin care — including sun protection and gentle cleansing — can keep your skin healthy and glowing for years to come.

Don't have time for intensive skin care? Pamper yourself with the basics. Good skin care and healthy lifestyle choices can help delay the natural aging process and prevent various skin problems. Get started with these five no-nonsense tips.



1. Protect yourself from the sun

One of the most important ways to take care of your skin is to protect it from the sun. A lifetime of sun exposure can cause wrinkles, age spots and other skin problems — as well as increase the risk of skin cancer.

For the most complete sun protection:

Use sunscreen. Use a broad-spectrum sunscreen with an SPF of at least 15. When you're outdoors, reapply sunscreen every two hours — or more often if you're swimming or perspiring.

Seek shade. Avoid the sun between 10 a.m. and 4 p.m., when the sun's rays are strongest.

Wear protective clothing. Cover your skin with tightly woven long-sleeved shirts, long pants and wide-brimmed hats. Also consider laundry additives, which give clothing an additional layer of ultraviolet protection for a certain number of washings, or special sun-protective clothing — which is specifically designed to block ultraviolet rays.

2. Don't smoke

Smoking makes your skin look older and contributes to wrinkles. Smoking narrows the tiny blood vessels in the outermost layers of skin, which decreases blood flow. This depletes the skin of oxygen and nutrients that are important to skin health. Smoking also damages collagen and elastin — the fibers that give your skin its strength and elasticity. In addition, the repetitive facial expressions you make when smoking — such as pursing your lips when inhaling and squinting your eyes to keep out smoke — can contribute to wrinkles. If you smoke, the best way to protect your skin is to quit. Ask your doctor for tips or treatments to help you stop smoking.

3. Treat your skin gently

Daily cleansing and shaving can take a toll on your skin. To keep it gentle:

Limit bath time. Hot water and long showers or baths remove oils from your skin. Limit your bath or shower time, and use warm — rather than hot — water.

Avoid strong soaps. Strong soaps and detergents can strip oil from your skin. Instead, choose mild cleansers.

Shave carefully. To protect and lubricate your skin, apply shaving cream, lotion or gel before shaving. For the closest shave, use a clean, sharp razor. Shave in the direction the hair grows, not against it.

Pat dry. After washing or bathing, gently pat or blot your skin dry with a towel so that some moisture remains on your skin.

Moisturize dry skin. If your skin is dry, use a moisturizer that fits your skin type. For daily use, consider a moisturizer that contains SPF.

4. Eat a healthy diet

A healthy diet can help you look and feel your best. Eat plenty of fruits, vegetables, whole grains and lean proteins. The association between diet and acne isn't clear — but some research suggests that a diet rich in vitamin C and low in unhealthy fats and processed or refined carbohydrates might promote younger looking skin.

5. Manage stress

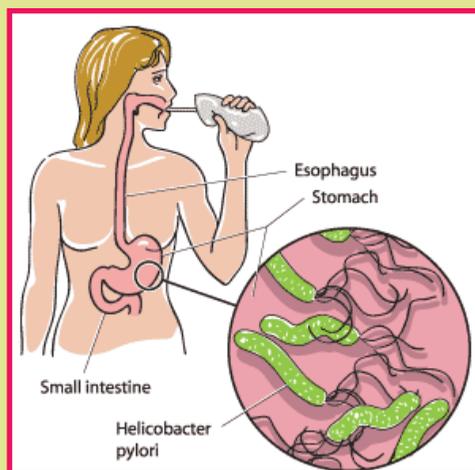
Uncontrolled stress can make your skin more sensitive and trigger acne breakouts and other skin problems. To encourage healthy skin — and a healthy state of mind — take steps to manage your stress. Set reasonable limits, scale back your to-do list and make time to do the things you enjoy. The results might be more dramatic than you expect.

With the new school year just around the corner — and for some, already underway — we want to do everything we can to keep our kids healthy and well. Over at She Knows, they have put together a list of suggestions on how to encourage wellness year round...



AN INSIGHT INTO HELICOBACTER PYLORI

Two students Naadea Madun and Lindiwe Modise, who were attached at Diagnofirm (microbiology and serology department), were intrigued by the high positive rates of H.pylori infection and decided to do some more research on this topic. Helicobacter pylori (formerly known as Campylobacter pylori) is a small, spiral shaped, Gram-negative bacterium that lives in the surface of the lining of the stomach and duodenum. It causes stomach inflammation (gastritis) and can also increase the risk of stomach cancer in the



long run.

Above is an image showing H pylori infection in the stomach.

The vast majority of people infected with H.pylori have no symptoms while others may have symptoms of gastritis or peptic ulcer disease. Ulcers can cause a variety of symptoms including nausea, lack of appetite, bloating, weight loss and burning abdominal pain (usually in the upper abdomen)

H.pylori infection is most likely acquired by ingesting food and water contaminated with fecal matter. The bacteria's shape and the way they move allow them to penetrate the stomachs protective mucous lining, which leads to the release of certain enzymes and toxins that weaken the lining and make the stomach more susceptible to damage from gastric acids.

H.pylori testing is recommended for anyone with a peptic (stomach or duodenal) ulcer. H.pylori testing is not usually recommended if one does not show any symptoms unless they have a family history of peptic ulcer disease or if one is concerned about stomach cancer. H.pylori infection can be diagnosed with the test of the blood, breath or stool.

Breath tests (known as urea breath tests) require that one should drink a specialized solution containing a substance that is broken down by the H.pylori bacterium. The breakdown products can be detected in one's breath.

Stool may also be tested to detect H.pylori proteins in stool.

Blood tests can detect specific antibodies that the body's immune system develops in response to the H.pylori bacterium.

At Diagnofirm medical laboratories, the DIAQUICK H.pylori cassette test is used to detect H.pylori infection. The "DIAQUICK" H.pylori cassette (whole

blood/serum/ plasma) is a rapid chromatographic immunoassay for the qualitative detection of antibodies to H.pylori.

It is a simple test that utilizes a combination H.pylori antigen coated particles and an anti-human igG to qualitatively and selectively detect H.pylori antibodies in whole blood, serum or plasma. In this procedure, anti-human igG is immobilized in the test line region of the test. After the specimen has been added to the specimen well of the cassette, it reacts with H.pylori antigen coated particles in the test. This mixture migrates chromatographically along the length of the test and interacts with the immobilized anti-human igG.

If the specimen contains H.pylori antibodies, a coloured line will appear in the test line region indicating a positive result. If the specimen does not contain any H.pylori antibodies, a coloured line will not appear and thus indicate a negative result. To serve as a procedural control, a coloured line will always appear in the control line region, indicating proper volume of specimen has been added and membrane wicking has occurred.

Doctors used to advise people with ulcers not to eat spicy food, fatty, or acidic foods. However, it is not known that diet has little if any effect on ulcers for most people. Smoking, on the other hand, can interfere with the healing of ulcers and has been linked to their recurrence. People diagnosed with H.pylori infection should be treated. There are a number of treatments for H.pylori infection.

They include: antibiotics to kill the bacteria, surgery to treat ulcers and other medications to reduce the amount of stomach acid being produced. Some of the treatment regimens use a medication called metronidazole (Flagyl) or clarithromycin (biacin).

Most people are cured after finishing one or two weeks of medication. It is important to finish all of the medicine to ensure that the bacteria are killed. After completing H.pylori treatment, repeating testing is usually performed to ensure that the infection has resolved.

This is typically done with a breath or stool test. Blood tests are not recommended for follow up testing; the antibody detected by the blood test often remains in the blood for four or more months after treatment, even after the infection is eliminated.

As with most health conditions, the best treatment for H.pylori is prevention. It is always important to protect yourself from GI infection by washing your hands well and frequently, practicing safe food preparation and storage and drinking water from a safe source. It is also advisable for smokers to avoid smoking as this can interfere with the healing of ulcers.

Sources:

http://www.medicinenet.com/helicobacter_pylori

<http://www.wakegastro.com/wp-content/uploads/2012/02/Peptic-Ulcer2.gif>

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DIAGNOSTICS

A photograph of three glasses filled with a vibrant red watermelon slush. The glasses are arranged on a white tray. The foreground glass is in sharp focus, showing the texture of the slush and a slice of watermelon with its green rind perched on the rim. A silver spoon is tucked into the slush. In the background, two more glasses are visible, one slightly out of focus. The entire scene is set against a light blue background, and the tray sits on a dark wooden surface.

EAT FRUITS
EXERCISE
AND STAY
HEALTHY