

# HUMAN HEALTH

# MINERALS

chemical elements needed by all living organisms to function (and not including nitrogen, oxygen, carbon, and hydrogen, which are present in all organic molecules).

- ◉ Come from Earth's crust, —————> soil —————> plants —————> humans and other animals.
- ◉ Different geographic areas contain varying quantities of minerals, some much higher than others.
- ◉ We get them from our food, or in pure mineral form (in salt, for example), and from dietary supplements. Without them, we simply can't function.

# WHICH MINERALS DO WE NEED?

- 7 major minerals:

phosphorous, calcium, sodium,  
potassium, chlorine, sulfur and magnesium.

- Essential or Trace minerals

iron, iodine, cobalt (from vitamin B12),  
chromium, selenium, copper, fluorine,  
manganese, zinc and molybdenum.

# MAGNESIUM

- ⦿ oxidizes fatty acids, preventing the formation of “bad” cholesterol;
- ⦿ it activates amino acids
- ⦿ works alongside over 300 enzymes; i
- ⦿ helps make DNA;
- ⦿ brain and immune function;
- ⦿ without it nutrients such as boron, potassium and vitamin B6 won't work properly.
- ⦿ Good dietary sources : peas and beans, nuts, whole grains, dark green vegetables and soy products.

# Iodine

- Needed for proper mental and physical development, cell respiration, metabolism of nutrients and production of energy, for nerves, muscles, skin, hair and teeth; and for repairing damaged tissues.
- 80% of it is found in the thyroid (a small gland in the neck) which regulates hormones for metabolism.
- Too little of it will give you cold feet, skin problems, insomnia, tiredness, weight gain and even goiter.
- Seafood and sea vegetables are great sources of iodine and, if they're grown in iodine-rich soil, green peppers, asparagus, lettuce, mushrooms, and raisins, among others.

## Chromium

- important for the metabolism of carbohydrates and fats.
- brain function and
- to activate numerous chemical processes,
- Regulation of insulin.
- Diet source: "liver, beef, apples, eggs, bananas, chicken, oysters, and green peppers.

## Copper

- transport and absorption of iron, a vital constituent of red blood cells.
- It's needed to build skin,
- bones and connective tissues,
- multiple enzymatic processes,
- protects against osteoporosis.
- It's an important mineral for the immune system,
- nervous system and cardiovascular system.

## Selenium

- ◉ It's concentrated in the liver, kidneys, and pancreas, and in males, the testes and seminal vesicles.
- ◉ Selenium is used for skin problems, infertility, asthma, and postmenopausal conditions.
- ◉ Unfortunately, much of the selenium in foods is lost during processing, but good sources include Brazil nuts, barley, oats, onions, garlic, mushrooms and broccoli.
- ◉ Human milk is much richer in selenium than cow's milk.

## Manganese

- ◉ treating premenstrual syndrome and t
- ◉ keep bones, skin and cartilage healthy.
- ◉ protecting cells from free radicals and helps metabolize cholesterol.
- ◉ One recent study on Mexican infants found that children who took manganese supplements grew faster and taller than others.

# ZINC

- ⦿ Zinc is essential for the production of certain hormones,
- ⦿ a healthy immune system, skin and bone formation.
- ⦿ Grow and Development.
- ⦿ deficient in zinc leads to getting more frequent and longer lasting infections of various types.
- ⦿ Deficiency Contributes to male infertility
- ⦿ Skin problems in Teenagers are often low in zinc,
- ⦿ Oysters are high in zinc.
- ⦿ Other sources , chicken, beef, milk, turkey, cheese, and yogurt will also work.

# HOW CAN I BOOST MY MINERAL LEVELS?

- ◉ Eating a good variety of nutritious foods is good but does not supply you enough of the minerals
- ◉ Science has shown benefits in taking high quality vitamins and minerals supplement For optimal health and the avoidance of chronic degenerative disease.
- ◉ Vitamins and minerals need the presence of one another in order to work properly, so taking a multivitamin without minerals is not nearly as effective.
- ◉ most easily absorbed and utilised are the chelated mineral (one that's bonded to a specific-size amino acid).

# VITAMINS

- Vitamins are- they are not a drug, they are not a “booster”.
- Vitamins are the very basic building blocks required over a long period of time (**lifelong**) to build a strong, healthy, disease free body.
- Vitamins should be taken every day in the right balance and quantities.
- We need to address the imbalance in our body between the “good guys” the anti-oxidants and the “bad guys” - free radicals to reduce the effects of oxidative stress and the causes of degenerative disease.
- A healthy diet may not be enough to provide you the vitamin balance required by the body
- Due to degradation of our food supply you are not getting all the vitamins that your body needs to maintain long term optimal health.
- A number of studies have shown that the large proportion of us is not getting the vitamins and nutrients we need.
- Studies have shown

*“sub-optimal levels of vitamins.....are risk factors for chronic diseases such as cardiovascular disease, cancer and osteoporosis. A large portion of the general population is apparently at increased risk for this reason.”*

# VITAMINS

## Vitamin A

- skin, essential for vision (also known as Retinol), cell growth, reproductive functions and maintaining immune system.
- Beta-carotene is converted to vitamin A by the body. Vitamin A can build up in the body and cause toxicity.
- use Beta Carotene as a source of vitamin A to maintain a safety level in their nutritional supplements.

## Vitamin B12

- Is essential for all cells. Particularly red blood cells and bone marrow cells. Vegetarians can be deficient in this vitamin because it is obtained from animal foods. Deficiency can cause anaemia and neurological disorders.

## Vitamin C

- ◉ essential role in forming collagen. Collagen is the in the fibres in skin bones and connective tissues. Vitamin C also has good antioxidant functions and high levels may be required to counteract the effects of oxidative stress.
- ◉ Inadequate vitamin C has been associated with increased cancer risk.

## Vitamin D

- ◉ Balances minerals in the body and is an essential component of bone growth. The role of sunlight is to synthesize vitamin D on the skin. Vitamin D has been shown to decrease the risk of fractures caused by osteoporosis when taken with calcium.

- ◉ **Vitamin E**

powerful antioxidants. helps to maintain healthy red blood cells and hormonal balance. It has a role in maintaining healthy skin, immune function as well as heart and artery health.

- ◉ **Vitamin K**

Vitamin K is one of the components needed for your blood to clot ,good for the immune system

- ◉ **Folate**

forms part of the system that controls amino acid metabolism. It assists in the growth of new cells. degradation of the food supply and particularly the processing of foods cause Folate deficiency. Deficiency has been linked to neural tube defects and some cancers.

- ◉ **Co factors**

co factors including Coenzyme Q10 and Bioflavonoid

# WE HAVE SEVERAL CHOICES

## 1. The "easy" approach

We can accept the consequences of a poor diet and blame the increase of degenerative diseases on the “normal effects of aging.” I.e. “roll over and give up”. I do not recommend this approach to anyone.

## 2. The "zealous" approach

We can find our own plot of healthy soil (a challenge in itself) - roll up our sleeves and return to the traditional farming methods of mulching, crop rotation and other organic methods so we can guarantee our fruit and vegetables contain the right levels of nutrients, vitamins, minerals and antioxidants. Option if you have all the time and the land

## 3. Somewhere in the middle

- To supplement a healthy diet (given our busy modern lifestyles and budget), with a high quality nutritional vitamin supplement.
- From trustable supplement producing company e.g. Forever Living Products
- High quality is the key to supplementation and there are a number of factors to look for when purchasing vitamins including guaranteed potency.

# CHOOSE QUALITY SUPPLEMENT

- ❖ A high quality manufactured vitamin supplement should be safe and it should be balanced in the right quantities.
- ❖ A high quality broad spectrum vitamin product is the best approach when choosing a nutritional product.
- ❖ A reliable manufacturer will produce a product that is complete, balanced and have the right levels of potency.
- ❖ The key to vitamins is their synergy - the way they work with each other. Certain vitamins can increase or lessen the effects of others.

## BRAIN HEALTH

health of your brain is incredibly important in living a long, quality life.

It is difficult for some substances to pass through the blood brain barrier.

supplements are the most important and most effective in fighting off neurodegenerative diseases like Alzheimer's and Parkinson's

- ❖ boosting brain health requires avoiding free radicals as much as possible, and taking a CoQ10 supplement.
- ❖ Studies have shown that many people who suffer from Alzheimer's are actually deficient in this very important compound.
- ❖ Vitamin E is the best antioxidant antioxidants. fat soluble and able to cross the blood brain barrier. As it enters the brain, it neutralizes and whisks away many of the free radicals that, could lead to Alzheimer's or Parkinson's disease.

# SUPPLIMENTS FOR BRAIN HEALTH

- ❖ omega-3 and omega-6 fatty acids, are best fatty acids and are available in fish oil supplements.
- ❖ grape seed extract. Is packed with bioflavonoid mixture is gaining ground in the alternative health community as a potential deterrent for a multitude of diseases.
- ❖ It crosses the blood brain barrier with ease, taking your fight against neurodegenerative diseases to the next level.
- ❖ Ginkgo biloba is widely touted as a "brain herb" -- many people believe it enhances memory function and even helps dissuade the onset of Alzheimer's.
- ❖ Studies shown a direct connection between calcium and Alzheimer's disease.
- ❖ Calcium is important substance for the brain, when calcium levels are depleted, brain cells are damaged irrevocably.
- ❖ One needs to consider taking between 1500 and 2000 mg of calcium daily.

# ARTHRITIS

**The two most common forms are osteoarthritis and rheumatoid arthritis.**

- ◉ In osteoarthritis, the cartilage between two bones begins to wear down, causing stress between the two bones. This stress produces inflammation and occasionally bone spurs.
- ◉ Rheumatoid arthritis is an autoimmune disease where the immune system actually begins attacking the cartilage and synovial linings in the joints between bones.
- ◉ In both of these forms of arthritis, inflammation is always present, which makes the situation even more painful than before.

## **What Are the Symptoms?**

Don't vary much between rheumatoid arthritis and osteoarthritis.

- ◉ In osteoarthritis, prolonged intermittent pain in one or more joints, stiffness after inactivity, a grinding feeling when using a particular joint (which occurs more often in advanced stages of osteoarthritis), and/or swelling and pain in a joint.
- ◉ In rheumatoid arthritis, initial symptom is swelling, tenderness, and pain in one or more joints, followed by pain and stiffness after inactivity, fatigue, and prolonged symptoms that don't seem to abate.

# ARTHRITIS PREDISPOSING FACTORS

- Age. As you near the age of 65, your chances of developing osteoarthritis improve exponentially.
- Obesity. Because of the increased weight strain on joints, those who suffer from obesity have a greater chance of developing osteoarthritis.
- Female gender. After the age of 65, women have a much higher risk of developing osteoporosis
- Overuse. If you play repetitive sports, repetitive motion throughout the day, any activity that, over time, consistently uses one or more joints on a regular basis.

# MANAGING ARTHRITIS NATURALLY

- ❑ proper cellular nutrition. Control free radicals with good antioxidants
- ❑ With degradation of our food supply, it's harder to get the good antioxidants you need straight from the grocery store.
- ❑ Eating a healthy balanced diet full of fruits and veggies is still a good start, but you need to make sure you're properly supplementing your diet with antioxidants and minerals.

## Nutritional Supplements for Arthritis

- Bioflavonoid - These are antioxidants often found in colorful fruits and veggies,
- Fish oil - The omega-3 fatty acids found in fish oil are incredible defences against oxidative stress.
- Grape-seed extract - one of most effective antioxidants available, found to help neutralize free radicals for up to three days after taking it.
- Vitamin C - recommended level of up to 2000 mg of vitamin C daily.
- Vitamin E - another important antioxidant to help prevent the cause of the disease.
- Calcium - calcium is the most important factor when slowing the progression of osteoporosis. Take supplements of 800 mg to 1500 mg daily, with a good level of vitamin D to help absorption.
- Glucosamine sulfate - Inherently important in cartilage synthesis, glucosamine should be supplemented at levels of 1500-2000 mg per day to help rebuild cartilage and prevent pain.

# DIABETES

- ❑ Before a person develops adult-onset insulin-dependent diabetes (or diabetes type 2), they go through a stage called syndrome X.
- ❑ Syndrome X is caused by the body's need for more and more insulin in order to survive.
- ❑ These raised insulin levels, over time, can cause a lot of damage to the body, including hypertension, heart attacks and strokes, and uncontrolled weight gain.
- ❑ As syndrome X progresses, the pancreas' abilities to produce insulin wears out, and high blood sugar develops, leading inevitably to diabetes mellitus. So diabetes prevention starts with the prevention of Syndrome X

## Symptoms of Diabetes

- Increased thirst and/or increased urination.
- Fatigue.
- Blurred vision.
- Unexplained weight gain.
- Increased appetite.
- Slow healing of wounds and/or infections.

Consider starting a supplemental program full of antioxidants, vitamins, and minerals in conjunction with any other dietary modification your physician recommends for diabetes prevention.

# FIGHTING DIABETES NATURALLY

- ❑ **diet.** Stay away from foods that will cause your blood sugar to spike. Foods like pastas, white flours, rice, and potatoes.  
Due to Degradation of our food supply we forgo the opportunity to feed our cells with the real nutrients they need for cellular nutrition .
- ❑ **Quitting smoking** . The body reacts to nicotine by a spike in blood sugar, which eventually leads to insulin resistance.
- ❑ **Exercise,** As you exercise, your body becomes sensitive to its own insulin, thus regulating your blood sugars a lot more efficiently and effectively.

## The Important Supplements to consider

- ⦿ **Fish oil.** omega-3 and omega-6 fatty acids in fish oil, healthy fatty acids help combat the onset of diabetes.
- ⦿ **Grape-seed extract.** efficient antioxidants. It helps in circulation and has a powerful effect on blood vessels, protecting the body against unwanted free radicals, and keeping the body safer from prolonged high blood sugar.
- ⦿ **Calcium.** Studies show a link between healthy levels of calcium and vitamin D intake and a decreased risk for diabetes. , take at least 1000 to 1500 mg of calcium with 450 to 800 IU of vitamin D daily.
- ⦿ Other important antioxidants which may assist as part of a program of diabetes prevention and/or treatment are chromium, vitamin E, vanadium, magnesium, vitamin C, and beta-carotene. There are also some arguments for the benefit of garlic supplements.