UNIVERSITY OF SCIENCE, ARTS AND TECHNOLOGY

BACHELOR'S DEGREE STUDY PROGRAM

ESSAY - 6

COMPREHENSIVE ESSAY READING - Part 1

HEALTH & HYGIENE

[Instructions: Read the essay and when you encounter each set of questions, indicate your answer on the separate sheet.]

MODULE – 20

CHAPTER 1: Better Body:
Condensed from BBC Educational Web page
www.bbc.co.uk/education

CHAPTER 2:

SURVIVIAL OF THE NUTRITIONALLY EDUCATED SPECIES
By Lloyd Jenkins

CHAPTER 1: Better Body:

Do not waste time and energy complaining about your body – do something positive! Follow our Better Body plan and spend the rest of your life feeling happy, healthy and confident.

Eat Well

If you want to glow with good health, you need to eat a balanced diet:

- Eat five portions of fruits and vegetables every day. They are packed with vitamins and minerals and are low in calories.

- Make starchy foods like bread, pasta, rice, noodles and potatoes the basis of every meal you eat. They‘re high in fibre and they‘re your body‘s main source of energy.

- Be aware of how much fatty and sugary foods you eat. They are both high in calories, and sugary foods have been linked with tooth decay (besides many other degenerative diseases).

- Eat a variety of different foods. There is no single super food that contains every nutrient you need. Eating a varied diet ensures that you get everything you need to stay healthy.

- Do not feel guilty about eating chocolate. Although it is high in fat, so you should not eat it all day and every day. It does taste great and it has got some very special ingredients. For a start, it triggers your brain to release “happy, smiley” endorphins. Plus it contains tryptophan, which gives you a feeling of inner calm; and, finally, it‘s packed with phenylethylamine – otherwise known as the “love chemical.” Worth a once-in-a-while treat? Surely. The vegetable oil and the high-refined sugar content is the real problem with chocolate. Look for “diet” chocolate that replaces white refined sugar with fructose or other

healthy options. (Check out the local health food store or the diet section at the supermarket).

What's The Right Weight?

You can find out at the BBC Health site, which uses calculations based on a measurement known as the Body Mass Index (BMI). This provides healthy weight ranges for people aged 16 and over. As long as you know your height, the calculator can tell you whether your weight is within the healthy BMI range of 20-25. A BMI of 19 or below is underweight, 25-30 is overweight, and over 30 is obese.

If you're wondering why they use a range of weights rather than one specific weight, it's because medical experts recognize that everyone is different. One person might have an athletic body frame, while another is small and slight.

But what if you're under 16? The reason that there are no healthy weight ranges is because, at this age, your body is still growing, so dieting could put your health at risk. If you're concerned, see your physician for advice.

If you're underweight

Obesity is in the press so much, it's easy to think that being underweight (with a BMI of 19 or lower) isn't a problem. However, for people who are underweight, it can be hard – particularly when faced with so little sympathy.

"It's alright for you, you could eat a ten-course meal and not gain a pound is typical of what my mates say," says Sarah W., who is 5 ft. 8 in., 8 stone 10lbs and has a BMI of 18.6. "What they don't realize is that I hate being bony. I'm

flat chested, my hips stick out and, when I try on clothes, I look like a stick. I hate going on the beach as much as anyone who‘s overweight.”

Other than the psychological stress of being underweight, there are also health implications. Being underweight can mean that you‘re not getting all the nutrients you need and, without these, your health will suffer.

You may also be lacking in body fat, which cushions your internal organs, stores energy and keeps you warm. Other side effects are an increased risk of developing osteoporosis and anemia, as well as dry skin, hair loss, a weak immune system and exhaustion.

Take action

- Do not feed on junk food. It is possible to gain weight healthily.

- Eat often. Don‘t eat three enormous meals a day. Eat breakfast, a mid-morning snack, lunch, a mid-afternoon snack, dinner and supper.

- Learn about food. Get a basic understanding of nutrition. For instance, a snack does not have to mean chocolate; it can be a handful of nuts and raisins.

- Make sensible swaps. You can make some healthy choices right now that will help you to gain weight. Drink whole or semi-skimmed milk instead of skimmed (this is not recommended if you have a lactose intolerance to milk). Replace low fat spreads with butter. Drink fruit juice rather than low-calorie fizzy drinks.

- Do not forget fruits and vegetables. They are bursting with nutrients and they are not as calorie-free as you think. Grapes, bananas, dried fruit, sweet potatoes, spuds and avocados are all great choices. Eat at least five portions every day.

- Get help. If your weight bothers you, talk to your doctor or a dietician.

If you're Overweight

It seems like the problems associated with being overweight or obese are never out of the headlines and maybe it's because of this that we take the warnings with a pinch of salt.

Fat facts

- The British are now bigger than ever – in fact, they are the fattest country in Europe.

- In the last major survey in England, researchers found that 45 percent of men and 34 percent of women are overweight (BMI 25-30)

- They also found that 16 percent of men and 18 percent of women are obese (BMI over 30).

Why is it happening?

The major causes seem to be inactivity and eating of fatty foods. We have remote controls, game consoles, ready meals and television – all of which means that we do not exercise and we do not eat very well.

Is being overweight harmful?

The heavier you are, the greater your risk of becoming ill. Did you realize that being overweight increases your risk of suffering from heart disease, diabetes, arthritis, high blood pressure and some types of cancer? If that is not enough of an incentive to reach a healthy weight, what about benefits like increased energy, more confidence and being able to wear whatever you like?

Take action

Have something to aim for. Set yourself a goal that‘s healthy and achievable. If you have got a lot to lose, break it down into chunks, so that it does not feel so daunting.

- *Forget fad diets*. They do not work – they just make you lose weight quickly because you are eating too little. Most people who follow these diets regain all their lost weight and then some more! The only --diets that work-- teach you healthy habits that you can maintain forever.

- *Learn about food.* The more knowledge you have, the better choices you‘ll be able to make when you are shopping, in the canteen or going for a meal. (Avoid fatty, deep fried foods, junk foods, soft drinks and sugary desserts. Reduce dairy products in your diet.)

- *Move and Shake*. Did you realize that you can reach your healthy weight at a faster pace by being active? Walk instead of driving. Use the stairs, not the lift. Turn on the radio and dance like a nut. And once you have started – keep at it.

- *Be patient.* No matter how much you want it, you will not be at your goal weight by next week. Doctors recommend a weight loss of one to two pounds a week.

- Which statement is the most accurate?

395. The more self-control you have with food the better choices you will be able to make while shopping, at the canteen or restaurant.

396. It is impossible to totally avoid fatty, deep-fried foods, junk foods, soft drinks, sugary desserts and dairy products; so do not worry about it.

397. Move and shake. Did you realize that you can reach your healthy weight at a faster pace by being active? Walk instead of driving. Use the stairs, not the lift. Turn on the radio and dance like a nut. And once you have started, keep at it. Be patient. No matter how much you want it, you will not reach your weight goal by next week. Doctors recommend a weight loss of one to two pounds a month.

398. Why are so many people today obese? The major causes seem to be inactivity and eating of fatty foods while using remote controls, game consoles and watching television – all of which means that we do not exercise and we do not eat very well.

399. Being a little bit heavy is always harmful. Also keep in mind that excessive overweight increases your risk of suffering from heart disease, diabetes, arthritis, high blood pressure and some types of cancer. Losing weight will give you increased energy, more confidence and the ability to wear whatever you like.

MODULE - 21

CHAPTER 2: SURVIVIAL OF THE NUTRITIONALLY EDUCATED SPECIES – by Lloyd Jenkins

Speaking of health and well-being, have you ever glimpsed at the obituaries to note the ages of those who have passed away? Insurance companies

have the most sophisticated computer programs to collect data on the longevity of the human race. Their statistics indicate that the average man lives to about 73 years of age and the average woman lives to 76 years of age. Insurance companies cannot afford to be wrong, so we can be quite confident that these estimates apply to the majority of people in most developed countries of the world at this current time. Life is indeed short, when you consider that most of us will only live to seventy or eighty. However, much more unanticipated and dismaying is what Dr. Wallack, a medical doctor in the United States, discovered. He did his own research and reported that the average medical doctor in the United States lives to only 58 years of age! Would you not agree that it is quite ironic that the very professionals that many of us trust with our life and health are among those with the shortest life span? How can this be so? What is the reason? We will address this discrepancy later.

Then again why, on the other hand, do scientists have documented evidence of certain groups of people living to 100, 120 and even 140 years of age? That is almost double normal life expectancy. "It appears we are reaching a time when living to the age of 100 is not only possible but probable."[1] One of the keys to slowing down aging and disease must include knowledge of nutrition.

WHAT WE LEARN FROM A YOUNG AGE STAYS WITH US FOREVER

Could it be that appropriate nutritional knowledge is the key to longevity and the healthy life of these centenarians? Study after study indicates that good nutrition and exercise is the key to longevity. But would you not agree that in our schools, colleges and universities, very little emphasis is placed on the

quality of victuals that we put or neglect to put into our bodies? In fact many doctors learn how to perform heart surgery, but learn very little about nutrition, which is the reason many of them do not live that long. This is the result of a high stress life-style and poor nutrition.

Would you not agree that nutrition should be a very fundamental basic study program in our educational system? After all, is it not sad and even ironic that the average man or women will educate himself in the best universities, climb the corporate ladder – maybe even in a Fortune 500 company – where he will often receive more expensive, valuable company training and experience; but just when he is at the pinnacle of his career and life, be stricken with a heart attack, crippling arthritis, diabetes, cancer or some other serious illness or blocked arteries due to bad cholesterol plaque build-up?! Vital education and practice of good nutrition could avert these illnesses and enable us to live longer with less threat of disease, thereby being able to work longer and better in our chosen career and be happier, healthier fathers, mothers and children.

Interestingly, Greenlanders have almost no heart disease, yet this is the number one killer in developed nations. What are Greenlanders doing that others are not? What is the key? Why is our educational system not giving the importance to the theme of balanced nutrition and exercise when our very survival depends on it? And if the majority of us have not been convinced in our youth what proper nutrition is and its importance, we may never make this great discovery or we may discover it too late. It seems that the knowledge and skills we learn in our school years are the ones that stay with

us the rest of our life. Health experts can talk until they are blue in the face to sick, tired people from any age 20 to 60 about the importance of good nutrition and it just seems to fall on deaf ears. Most people would sooner have an arm, leg or some other body member removed than cut out french-fries and sugar-coated donuts from their diet. In fact it has been said "It's easier to get someone to change their religion than to get them to change their diet." Let us face it, to most people their favourite food is almost worshipped, it is almost sacred. What our parents feed us and what we learned in our tender years seems to impact us more than we can imagine. If good nutrition and proper nutritional habits and education began from birth, it would no doubt stay with us all our life.

SPEND OUR WEALTH TO REGAIN OUR HEALTH

Because of this lack of early training many end up in spending their health to gain their wealth; then later on they need to spend their wealth to regain their health. This backwards way of doing things could be avoided by integrating nutritional concepts into our educational system right from the first day a child goes to school right through to university level. In addition, programs could be directed to parents on how to prepare quality nutritious food for their families, and fill the refrigerator and kitchen cupboards with healthy foodstuffs.

LIFE-STYLES THAT DAMAGE OUR HEALTH

In the United States, the annual health-care cost for smoking-related illnesses is estimated to be $50 billion. However, reports show that young school teenagers are taking up smoking more than ever before. The

educational system has proven ineffective in convincing our youths of the dangers of smoking.

Alcohol abuse has been linked to a number of health problems, including cirrhosis of the liver, heart disease, gastritis, ulcers, and pancreatitis. It can also make one more susceptible to infectious disease such as pneumonia. In the United States each year, "$10 billion is used to treat people who can't handle their liquor," according to Dr. Stanton Peele. Alcohol often affects the foetus in the womb. Each year tens of thousands of children in the United States alone are born with defects because their mothers drank while pregnant. Some of these infants are diagnosed with foetal alcohol syndrome (FAS), and often these suffer from physical and mental impairments. The average lifetime medical cost for each FAS child has been estimated at $1.4 million.

In many parts of Europe, teenage boys and girls sit on street corners and in parks and drink heavily, shout, sing and cause general disturbance to pass the time. In Malaga, Spain, it was decided by the irate community in the area to give all these teenagers condoms and encourage them to pass their time "making love" instead of getting drunk. This is the type of education that our society is promoting today.[2]

In Canada, cardiovascular disease accounts for some 75,000 deaths annually. This is "more than the combined total due to cancer, AIDS and accidents," notes *The Edmonton Journal.* According to the Canadian Heart and Stroke Foundation, "a sedentary lifestyle now is considered as potentially damaging as smoking, high blood pressure and high blood cholesterol." [3]

It used to be that when you reached forty-five or fifty that you started to have noticeable health problems. However, now, even kids are starting to be affected, mostly because of “nutritional illiteracy” as so clearly brought out in the following MCCLEANS Magazine report: “Some of the kids, happily splashing in the water, could already suffer from soaring blood pressure, abnormally high cholesterol levels and other cardiovascular ailments, which may be the precursors of heart disease and strokes. Some might already exhibit the first hints of arthritis from carrying those extra pounds. Others may even be demonstrating the first signs of Type 2 diabetes, another disease that used to strike only in adulthood but is now hitting preteens in Canada. That affliction can lead to blindness, kidney failure, nerve damage and heart disease in later life. Worst of all, unless something changes, many of these obese kids will become obese adults – with an increased risk of dying from a range of causes compared to adults of normal weight.” “Childhood obesity is an epidemic,” warns Dr. Claire LeBlanc of Ottawa, chair of the Canadian Paediatric Society‘s Committee on Healthy, Active Living for Children and Youth. “We‘ve got to treat it like one.” Should we conclude that this doctor is an alarmist? Well, just walk into any Cineplex or McDonald‘s and gaze upon the jiggling jowls and beach-ball bellies on the grade-schoolers and teenagers lining up for those free popcorn refills and gargantuan Cokes. Worse yet, look at the numbers. According to a recently released study, 33 percent of Canadian boys were overweight in 1996 – triple the rate in 1981 – while the number of overweight girls swelled to 27 per cent from 13 percent. The ranks of obese children – the kids truly in danger of getting adult-type diseases before they stop believing in Santa Claus – have soared even more

dramatically: 10 percent of boys and nine percent of girls are now considered obese, generally defined as being at least 20 percent above ideal body weight. That's a five-fold increase from 1981. "Compared to the rest of the world, our kids are leading the pack," says Mark Tremblay, dean of kinesiology at the University of Saskatchewan. [4]

- Which statement is the most accurate?

400. Because of the lack of early training, many end up spending their health to gain their wealth and then later on they need to spend their wealth to regain their health. For the moment, this way of doing things cannot be avoided because wise nutritional concepts are not being taught early enough in our educational system.

401. Greenlanders have almost no heart disease because they have a better educational system, which gives importance to balanced nutrition and exercise – their very survival depends on it.

402. A few teenagers may even be demonstrating the first signs of Type 2 diabetes. That affliction can lead to blindness, kidney failure, nerve damage and heart disease in later life. These obese kids will become obese adults, who, compared to adults of normal weight, will face an increased risk of dying from a range of causes. Even some children are suffering from obesity now.

403. Scientists have documented evidence of certain groups of people living to 100, 120 and even 140 years of age.

MODULE - 22

SICKNESS IS EVERY MAN'S MASTER

"SICKNESS is every man's master," states a Danish proverb. Anyone who has been a victim to a chronic illness will readily testify that this "master" can be a cruel one indeed! Yet, you may be surprised to learn that illness is often more like an invited guest than a master. The U.S. Centers for Disease Control and Prevention attributes 30 percent of the days that patients spend in the hospital to diseases and injuries that could be avoided. What is the

cause? The cause is unhealthy and hazardous life-styles. Consider some examples.

Since the early 1900s, we have steadily *increased* our consumption of red meat, poultry and dairy products (that contain growth hormones, chemicals and antibiotics). We also use in our diet more refined sugars and artificial sweeteners, additives and chemical food preservatives, deep-fried foods, "fast foods," "junk foods," highly processed cooking oils and margarine. However, on the other hand, we have steadily *reduced* our consumption of whole grain products, fresh fruits and vegetables, salads, eggs, unrefined natural fats and oils, seeds and nuts. Or, in other words, we've allowed ourselves to be manipulated by the market to buy readily available, over-processed, chemical-saturated convenience foods.

Would you not agree that unless we are very careful our bodies could easily become a *"toxic waste dump"?* In fact some authorities have estimated that now as many as 7,000 chemical additives appear in our food. Most health experts now agree that this has greatly contributed to the increase in cancer, allergies, asthma and a host of other common illnesses.

Corn, safflower, sunflower and cottonseed oils have no place whatsoever in our diet and were not used by traditional societies because heat is needed to extract the oil, thus destroying its value. Also corn oil does not contain even one trace of essential linolenic fatty acid. Safflower and evening primrose oil contain only one of the essentials (linoleic acid) but offer no linolenic acid. On the other hand, flaxseed oil is the perfect choice.

Flaxseed oil speeds up the metabolic rate and assists in the vital oxygenation of every cell in the body. It offers all the essential amino acids that the body requires but cannot manufacture. (If just one essential amino acid is missing from the diet, the resulting protein deficiency can lead to serious disease). Flaxseed is a rich source of the important fat-soluble *Vitamins* A, D, and E, plus B1, B2, and C. In addition, it contains all the *major minerals* (potassium, phosphorus, magnesium, calcium, sulphur, iron, zinc, sodium, chlorine), plus the important *trace minerals* such as silicon, copper, iodine, etc. And finally, flaxseed is an excellent source of *fibre.* I like to think of it as "Mother Nature's perfect oil." Linseed or flaxseed oil is regarded as a high-quality vegetable oil in many parts of the world today. However, most Americans, up until now, have looked on it as merely an additive in oil-based paints (this is the refined and heat-processed linseed product, not to be confused with the unrefined, cold-pressed oil we are discussing here).

Dr. Johanna Budwig of Germany, in the early 1950s, discovered the true value of flaxseed oil and has used a combination of flaxseed oil and sulphur-based proteins to treat arthritis and cancer with tremendous success. She developed the right combination of essential fatty acids in flaxseed oil and sulphur-based proteins, which she found in abundance in low-fat cottage cheese or Quark. These two ingredients along with certain adjustments to the diet and supplements of specific minerals and antioxidants are what make up her world-renowned formula for conquering cancer and a host of other diseases of fatty degeneration.

DESTRUCTIVE FATS

Just how bad is bad fat for us? Let‘s take a quick tour of a cooking oil manufacturing plant. Consumers have been actually “brainwashed” into believing that their salad and cooking oils should be clear, tasteless and odourless. How are most oils and margarine processed? The first step in refining the oil is called *degumming.* This is to remove most of the remaining phosphatides, essential for life*,* from the seeds. Lecithin is taken out. All the complex carbohydrates (some elements similar to proteins), and the gums are removed. The chlorophyll, calcium, magnesium, iron and copper (all health-promoting minerals) are refined out. Next, some *caustic corrosive chemicals*, such as sodium hydroxide (better known as “Draino”), or a mixture of sodium hydroxide and sodium carbonate, are dumped into the oil. This mash is now mechanically *agitated at a temperature* of about 167 degrees Fahrenheit. After this, the oil may be yellowish or reddish in color, so these natural pigments are bleached out to give us the colorless oil we‘ve been taught to expect. Now, using acids and at temperatures of up to 230 degrees F., the essential fatty acids still present are further chemically damaged*. Chemical odours* are now added. Steam distilling, at extremely high temperatures of up to 518 degrees F. for up to an hour, then takes place. Now, to make it last a long time on the shelf, synthetic chemical antioxidants are pumped into it and a “defoamer” is also added. So it is no wonder that virtually all the vitamins and minerals are eliminated, and the essential fatty acid molecules are chemically altered. It really is questionable now as to whether this oil can be technically still called a food product. *Margarine* however is even more highly processed. Switching from butter to margarine

was not such a good idea after all. Some health experts have stated that if it was processed one more step, it would turn into *"plastic," so we can just well imagine what margarine does to our arteries and heart!*

A very efficient advertising campaign has fooled us into understanding that margarine is good for us because it is made with polyunsaturated fats. We have been lead to believe that polyunsaturated is "good" fat in that it contains no cholesterol. However, the polyunsaturated fats in these oils and in margarine are not *essential fatty acids* that the body cries out for. No; instead, because they have been so grossly chemically altered, they are *completely alien* to the body. And they can actually do serious harm to the body cells and are strongly implicated in the degenerative diseases that are on the increase in this 21st Century. These —bad fats when consumed put a *heavy burden on the liver*, which in turn *lowers our immune system*. This opens us up to a host of infections, viruses, colds and other common illnesses. We are truly wonderfully made. How do our bodies keep working as long as they do despite the fact that we consume so many additives, pollutants, deep-fried foods, growth hormones and antibiotics in meats, the steady diet of potato chips, cola drinks, and a host of unhealthy bad fats and "electron dead" foods?

But the day of reckoning does come to most of us and all too soon. We get away with this unhealthy diet for about the first forty or fifty years of our lives *(when we believe we are immortal).* Then the arthritis, high cholesterol, prostate enlargement, heart attacks, asthma, depression, allergies, strokes, cancer, Alzheimer's, osteoporosis, high blood pressure and other common

illnesses come “knocking at our door.” *(Sorry if that sounds a little pessimistic.)*

Experts suggest that 30 percent of all cancers are caused by diet. Perhaps acrylamide plays a key role. The Swedish studies on acrylamide in starchy foods met with skepticism in the US and from the food industry. Then scientists in Britain and now Norway have reported similar results. The answers are not all in, but I am glad that WHO is calling together experts to evaluate the situation. WHO is headed by Gro Harlem Brundtland, a physician and former Prime Minister of Norway, who is a champion of sustainable development.

HYDROGENATED OIL

It‘s everywhere – in our food, our cooking oils, margarine, bread, peanut butters, pastries, chocolate, pizzas, French fries, hamburgers, and the list goes on and on. So many products contain hydrogenated vegetable oil! So be kind to yourself, try to reduce the consumption of hydrogenated oils as much as you logically and practically can by looking for alternatives. *Here are some suggestions:*

- Switch to *extra virgin olive oil* for cooking and salad preparation. When you first start using extra virgin olive oil you might find the flavour a little strong, but after constant use, you will probably get to like the flavour. Purchase olive oil with an acid level of around 4% for a smoother, better flavour.

- Also, any “cold pressed” and “extra virgin” oils, such as soy, Canola, sesame, etc., will do fine and usually have less of a strong taste. Canola oil

and soy oil have also been found to contain small amounts of Omega 3 and are suitable for cooking and salads. Be careful – some olive oils and other "cold pressed" oils also contain some refined oil, so it is important to carefully read the label. They should be *unrefined, cold-pressed, extra virgin* to be of real value. These oils should not be overly heated, however, when used in cooking. Flaxseed oil can be used for salad preparation or mixed in our cereal, but not for cooking; it should *never be heated* up.

DR. BUDWIG – LEADING RESEARCHER

For overweight and underweight, tests show that flaxseed oil decreases craving for fatty foods and sweets, regulates blood sugar and insulin levels and increases oxygen consumption, according to Dr. Jade Beutler. This is remarkable news for anyone that craves sugar and/or has a weight problem. When you have a sugar craving, try the delicious —Budwig dessert below.

DR. BUDWIG FLAXSEED RECIPE

2 tablespoons of flaxseed oil
2-3 tablespoons of Quark (or cottage cheese)
2 tablespoons of freshly ground flax seeds
(Do not grind seeds and store, grind and consume immediately)
1 tablespoon of honey and/or black strap molasses

Optional and for better health and taste

3 tablespoons of Bilberry (blueberry) juice or some other strong concentrated juice
2 tablespoons of Soya Lecithin granules
2 tablespoons of freshly ground Bee Pollen

Which statement is the most accurate?

404. For most people their favourite food is almost worshipped, it's almost sacred. However, if good nutrition stemming from proper education began at school this would no doubt stay with us until we left home.

405. For overweight people the good news is that tests on flaxseed oil show that it decreases cravings for sweets, regulates blood sugar and insulin levels and increases oxygen consumption. However, it still remains to be seen whether it reduces the desire for fatty foods.

406. Hydrogenated vegetable oil seems to be everywhere: in our food, our cooking oils, margarine, bread, peanut butters, pastries, chocolate, pizzas, French fries, hamburgers, and the list goes on and on.

407. There remains no doubt that a diet high in chemically refined fats from margarine, shortenings and cooking oils slightly increases the risk of cancer, heart attacks, arteriosclerosis and rheumatoid arthritis. Clinical testing shows that a diet low in omega-6 fatty acids and supplemented with omega-3 (flaxseed oil), in addition to healthy eating, slightly reduced the risk of these common illnesses.

CLINICAL STUDIES

- A study done in 1991 shows that flaxseeds contain over 100 times the levels of lignans found in other plant foods. Lignans are special compounds that are demonstrating some rather impressive health benefits, including positive effects in relieving menopausal hot flushes, anticancer, antibacterial, antifungal and antiviral activity. **5**

- The most significant actions of lignans are their anticancer effects according to the tests done in 1994 by J.W. **6**

- Not only do the lignans increase the production of a special sex hormone-binding compound, they are thought to be one of the protective factors against breast cancer in women. High-lignan flaxseed oil may be the best choice for women going through menopause or women at risk for breast cancer. **7**

- In 1981, researchers first hypothesized that children with bad behaviour (ADHD) may have reduced nutritional status of essential fatty acids because they showed greater thirst compared to children with normal behaviour. In 1987, researches further documented that 48 children with ADHD reported significantly greater thirst, more frequent urination, and more health and learning problems than children without ADHD. Significantly lower levels of two omega-6 fatty acids were found in the subjects with ADHD symptoms. [8]
- In addition, it is possible that alpha-linolenic acid also exerts some of its anticancer effects via enhancement of immune function. [9]
- In another study, the possible interaction between intense exercise – known to suppress the immune system – and polyunsaturated fatty acids was examined in mice. For eight weeks the animals received either a natural ingredient diet only or a diet supplemented with 10g/100 mg of flaxseed oil (50% alpha-linolenic acid), beef tallow, safflower oil (mostly linoleic acid), and fish oils. Each dietary group was divided into either a sedentary group or an exercise group. Exercise consisted of continuous swimming at high intensity until exhaustion. In the exercised animals, the immune response was suppressed by exhaustive exercise, except for the group receiving the flaxseed oil. Only the group receiving the flaxseed oil demonstrated a normal immune response. [10]

The significance of these results would encourage us to recommend flaxseed oil supplementation to athletes and people who place great physical or mental demands on themselves due to a heavy work load, in order to offset some of the negative effects on immune function.

- The fact that omega-3 fatty acids help prevent heart attacks was first shown in animal studies conducted in the 1980s. Eight lab animals were subjected to conditions that mimic a heart attack. All eight of the animals promptly developed arrhythmia (fast, irregular, uncontrollable heartbeat) that would have killed them had the experiment been allowed to continue. Now this same experiment was repeated with a different group of new animals that had been given an infusion of omega-3 oil (from fish oil) a mere 60 minutes prior to the rigorous test. The omega-3 fatty acids completely abolished the arrhythmia in seven out of eight animals, while the eighth animal had a mild, nonlife-threatening event. **11**
- More than a dozen studies in the past ten years have shown that omega-3 fatty acids can help alleviate some of the symptoms of rheumatoid arthritis. **12**

This is the type of nutritional information that could very easily be incorporated into our schooling system and learned as part of our early eating habits.

(For more helpful information on Heart Disease visit the web page of Linus Pauling, the distinguished scientist and two-time Nobel Prize winner who revolutionized our thinking about vitamin C.)

http://www.internetwks.com/pauling/

Which statement is the most accurate?

408. When “bad” fats are consumed they put a burden on the liver, which in turn affects our immune system. Increased consumption of fruits, vegetables and high doses of vitamin C should be taken to offset harmful effects such as infections, viruses, colds and other common illnesses.

409. Some authorities have estimated that now there are as many as sixty thousand chemical additives in our foods. Few health experts would agree that this is contributing to the increase in cancer, allergies, asthma and other common illnesses.

410. In addition, it is possible that alpha-linolenic acid could cure all forms of cancer, as it exerts anticancer effects by enhancing immune function.

411. “Sickness is every man‘s master,” states a Danish proverb. Illness, however, is often more like an invited guest than a master.

MODULE – 23

TOXIC PRESCRIPTION DRUGS CAN HURT US

A recent report by the Health Research Group of the consumer organization, Public Citizen, reveals some sobering statistics about the side effects of what the FDA (U.S. Food and Drug Administration – the government agency in the United States that approves pharmaceutical drugs) labels as “safe and effective” drugs:

- Each year 61,000 older Americans develop drug-induced Parkinsonism.
- 32,000 hip fractures are caused by drug-induced falls.
- 163,000 Americans develop drug-induced memory loss or impaired thinking.
- More than 243,000 over the age of 55 are hospitalized each year because of adverse drug reactions.

- More than 2 million older Americans are addicted to minor tranquilizers and/or sleeping pills.[13]

ANTIBIOTICS – TWO EDGED SWORD

"Perhaps more than any other class of drugs, antibiotics are dangerously over-prescribed, that is, prescribed for infections which cannot effectively be treated by antibiotics. This doesn't say much for this country's medical education, does it?" [14]

What are the severe side effects of taking antibiotics?

- Stomach irritation – progressing to severe intestinal problems caused by bacteria that are almost impossible to kill.
- Severe liver and kidney damage.
- Irreversible bone marrow depression – which can be fatal.
- Allergies – most people with allergies have received regular doses of antibiotics.
- Increases susceptibility to Candida and other yeast infections.
- Development of strains of bacteria that are antibiotic resistant.
- Suppresses the natural function of the immune system, making one more susceptible to flus, colds, infections and other common illnesses.

EXERCISE AND LIVE LONGER

Regular exercise is widely recognized as a preventive measure against heart disease. But as Anthony Graham, chief of cardiology at

Toronto‘s Wellesley Hospital, stated, there is a note of caution: “You can receive significant incremental benefit from much less aggressive exercise.” The *Journal* reported that “science has proved the benefits of low-intensity exercise.”

“Physical activity doesn‘t have to be very hard to improve your health,” says *The Physical Activity Guide,* recently released by Health Canada. As reported in *The Toronto Star,* “you can improve your fitness and your heart by doing light activity for 10-minute periods and add them up to an hour‘s worth each day.” What are some of the recommended activities? They include walking, stair climbing, gardening, and stretching. Such household chores as vacuuming or mopping also count, and they build flexibility. The guide suggests that the goal of accumulating 60 minutes a day “can be reached by building physical activities into your daily routine.” Says Dr. Francine Lemire, president of the College of Family Physicians of Canada: “If you are inactive, studies show that the health risk could be on par with smoking.”[15]

Young people naturally get lots of exercise with school sports activities and because of the fact that they do not own a car yet; they ride bicycles, walk or run every day. However, once we finish our formal education there is a real danger that one can become a “couch potato” very quickly. And what many have noticed is that once you stop exercising it is very hard to get started again. We seem to become physically lazy very easily.

Scientists continue to find benefits in moderate exercise. *American Health* magazine reported recently on a 30-year study of 17,000 men. Those who burned over 1,000 calories a week through exercise seemed half as susceptible to colon cancer as those who did not. A 19-year study of over a

million Swedish men found that those who sat for over half their working hours had a 30-percent higher chance of getting colon cancer than those who were sedentary for less than 20 percent of their workday. A Harvard University study of 5,400 women found that those who exercised moderately while at college had half the breast-cancer rate of their less active classmates, who, in turn, had 2.5 times more cancers of the reproductive system. There is even some evidence that moderate exercise boosts the immune system, helping fight off viruses faster. Extreme exercise though—such as running a marathon—seems to have the opposite effect, temporarily suppressing immunity. **16**

What Exercise Can Do for You

A LANDMARK study of 17,000 Harvard alumni, described in *The New England Journal of Medicine* four years ago, showed that physical exercise could counter an inherited tendency toward early death. "You're healthy because you're active," concluded Dr. Ralph S. Paffenbarger, Jr., director of the study.

In June 1989 *The Journal of the American Medical Association* said: "Physical activity has been associated with the prevention and control of numerous medical conditions, such as coronary heart disease (CHD), hypertension [high blood pressure] . . . and mental health problems." It added: "CHD is 1.9 times more likely to develop in a physically inactive person than a physically active person. This association is impressive."

In November 1989 this same medical journal published a study involving 13,344 subjects, and it further showed the value of exercise. The

comprehensive study revealed that even minimal exercise—such as a brisk half-hour walk once a day—results in significant protection from death from a wide range of causes.

Dr. Norman M. Kaplan of the University of Texas Southwestern Medical School at Dallas, who is an authority on hypertension, says that he has changed his mind on the value of exercise in treating high blood pressure. "As I have seen the evidence accumulating in the last three or four years I have become more encouraging to people about exercise." [17]

Little wonder that Dr. Kaplan now prescribes aerobic exercise for patients with high blood pressure. "I tell my patients to get their pulse rate up," he explains. "I tell people to start slowly. Don't jump into it. Begin with walking and slow running and build up. If you encounter any problems, back off." To be a real health benefit, exercise must be practiced regularly, preferably three or four times a week for a period of 20 to 30 minutes or more each time. That seems to be the magic formula. So we need to ask ourselves: Am I getting a 20 or 30-minute workout every second day? This is what the heart, lungs, muscles and mind all crave for and need. If we love ourselves and want to enjoy our food, our families, our marriages (better health also means better sex life), along with a better mental outlook and longer life with fewer illnesses, we need to keep physically very active.

DEPRESSION RELIEF

Over the counter antidepressant medicine is becoming a very high demand drug, especially in the most advanced countries like North America and Europe. Why is that so? One would think that in these countries with all the comforts, good life and high standard of living, there would be little or no

depression. Well here again, in many cases knowledge comes to the rescue and lack of knowledge – or lack of applying knowledge – is letting many people down, causing depression.

Notice this amazing discovery reported in the Toronto Star newspaper about the value of exercise and depression: “Aerobic exercise such as brisk walking and jogging may offer an effective treatment for people suffering from moderate depression.”

Commenting on a study conducted by the University of Glasgow, Nanette Mutrie, lecturer with the university‘s physical education department, recommended that general practitioners who have patients with symptoms of depression “may do well to advise them to undertake a program of exercise.” The reason for the positive effects of aerobic exercise eludes researchers, but the *Star* report notes Mutrie‘s suggestion that “increased heart rate and oxygen intake may cause the release of mood-altering chemicals such as endorphins or that the rhythmic nature of aerobics may elevate a person‘s sense of well-being”. **18**

So logically, if regular healthy exercise will reduce and in many cases even eliminate depression, would not regular exercise also prevent depression? Of course, I repeat myself in mentioning that some people are victims of incorrect hormone balances or they may have inherited strong tendencies toward depression. They may be helped greatly by regular exercise; however, they may and should still take some medication. Their medication, however, may be reduced considerably, which is always something to strive for, as all conventional medicines help in one area and

hurt in another. The liver, kidneys etc., are often damaged over time from continued use of conventional medicine.

Hope for Heart-Attack Victims

Can regular moderate exercise help heart attack victims?

"It was thought before that progression toward heart failure was inevitable following extensive heart injury, but reversing the damage is doable with exercise," claims Dr. Peter Liu, director of cardiology research at the Toronto Hospital. Following a promising study on rats, the hospital's Cardiac Function Clinic had heart patients "walk for gradually increasing distances each day," reports *The Globe and Mail.* "Initial results show walking at least a kilometre daily can reverse the 'downward path' to heart failure in humans as well." However, the pace should be relatively vigorous, and the walking done under supervision, said Dr. Liu. **19**

Exercise and Sleep

"For older men, exercise may be the solution to better sleep," reports the magazine *Arthritis Today.* In a recent study in North Carolina, U.S.A., a group of 24 men from 60 to 72 years of age was divided into two groups. For at least a year, one group exercised vigorously three times a week or more; the other group exercised minimally and irregularly. The men who exercised regularly and vigorously, it was found, fell asleep on average twice as fast as their sedentary counterparts. This held true whether they were tested on the day that they had exercised or on another day. The magazine adds: "They also spent less time awake at night." **20**

Other useful techniques for insomnia are:

- ✓ Walk with your bare feet on planet earth; for example, walk on grass (preferably a little damp), or on sand (going for a walk on the beach is very therapeutic and also gives the entire bottom of your foot a good massage which is beneficial for the entire body, based on the study of reflexology). Swimming is also excellent, especially in the sea or rivers and lakes. The body accumulates negative energy and walking on the planet earth with bare feet discharges this negative energy build-up. In fact, electricians have found that if a person receives a strong electric shock, if possible, put him in the shower and turn it on. The water will discharge all the excess electrical energy. *(Of course you make sure he/she is disconnected from the electrical source before turning on the shower…!)*
- ✓ Avoid eating at night just before going to bed. If, of course, you are really hungry, eating something will be necessary; otherwise your hunger will keep you awake. A little wine is good for inducing sleep. In contrast, drinking strong, hard liquors will put you to sleep, but usually you will wake up in the middle of the night and find it hard to get back to sleep.
- ✓ If you are having trouble sleeping, put your forehead into your pillow, raise your bottom in the air and spread your knees apart to support yourself. If you have eaten just before going to bed or recently eaten a large meal, this will help digestion. Hold this position until you feel very tired, and then flip over on your side and you should shortly fall asleep.

- ✓ Take a cold, one- to three-minute foot bath with water up to the calves just before going to bed.
- ✓ Milk and honey is an old-fashioned sleeping potion. The calcium tranquillizes and the honey helps the body to retain fluids, thus keeping the kidneys from alerting you during the night. Honey could also be used in herbal tea along with two tablets of calcium with magnesium instead of milk. Peppermint or Chamomile teas are both excellent tranquilizers.

AM I TOO OLD TO EXERCISE?

You aren't, according to a study carried out recently in the eastern United States. A survey of over 10,000 men found that they increased their average life span regardless of their age when they took up "moderately vigorous" exercise. "Those who were between 45 and 54 when they started benefited most, extending their life span by some ten months. The 65 to 74 group added six months, and those 75 to 84 improved by two months. Dr. Ralph S. Paffenbarger, who directed the study, emphasized that these were averages; thus, some subjects benefited much more from exercise than others. The main benefit seemed to lie in preventing heart attacks. However, those who exercised were less likely to die of other causes as well."[21]

Dangers of Too Much Exercise

Excess in anything is never good. While exercise is good for the heart and lungs, too much exercise can weaken bones, leading to problems in later life. That is what was reported at a conference dealing with the impact of exercise

on the human skeleton, according to *The Guardian* of London. Runners and those “in the pursuit of supreme fitness” were at greatest risk. Young women who participate too often in aerobic or dance classes experience more stress fractures and are said to risk suffering from osteoporosis when they are older. “Athletes were warned that they only had until the age of 18 or 19 to strengthen their bones before they started becoming weaker with time,” the article said. “Squash and tennis were identified as the best sports to play to increase bone strength.” Michael Horton, head of the University College of London‘s bone center, advised striking a proper balance between exercise and health. He warned: “The Government keeps saying that young people should do lots of exercise. It may have a benefit for a while, but no one has thought what the end result is going to be when these young people reach the age of 50.” [22]

Again, the magic formula seems to be about 30 minutes of exercise every second day of the week. If some days you are not feeling too good, it may be best to skip that day as your body may need rest more than exercise. Good old common sense is always needed in dealing with your body. Listen to your body. “No pain, no gain” is a worthwhile expression. Just the same, if we are not well, we are best not to inflict any “pain” on our bodies, but wait until we are feeling good again. However, most of us tend to pamper our bodies and never really challenge it. The moment we are tired we get off the exercise machine and dab the little bit of sweat that is starting to form on our foreheads. However, if we are in good health and feeling good, the whole body needs a good strong 20 to 30 minutes of continuous workout to benefit the heart, lungs and the rest of our bodies. It‘s okay to rest a little now and

then, catch your breath and enjoy the exercise program. Put on your favourite vigorous music. Good rock and roll music with a lively beat is motivating. Exercising while watching the news is practical as most of us sit for 20 minutes and watch the news at least every day. I have personally found over the years that this is the best way for me to be motivated to continue my exercise program. I have worn out several stationary bicycles and am currently enjoying doing my workouts with an elliptical skiing apparatus. I watch the news every second day (not much changes in just one day) and do my exercises at the same time. Time flies as I am concentrated on what's happening around the world.

If we find we don't have much energy for exercise, there are three things to consider:

1. We need to start off gently and work up to a longer and more intense exercise program.
2. Perhaps we need more rest. Health authorities generally agree that most of us need a regular seven to eight hours every night.
3. Our nutrition is not adequate. We need to eat better, healthier food to energize the body.

- Which statement is the most accurate?

412. Good doctors prescribe medicine. We cannot blame doctors for the yearly toll of 61,000 older Americans who develop drug-induced Parkinsonism, for the 32,000 hip fractures caused by drug-induced falls and for the 163,000 Americans who develop drug-induced memory loss or impaired thinking.

413. Young women who participate in aerobic or dance classes experience less stress fractures and are at less risk of suffering from osteoporosis when they get older.

414. Health authorities generally agree that most of us need a regular seven to nine hours of sleep every night.

415. However, if we are in good health it is recommended that we have a good 20 to 30 minutes of continuous workout, once a week; to benefit the heart, lungs and the rest of our bodies.

DIETS AND YOUR HEALTH

Condensed from the BBC Webpage

www.bbc.co.uk/education

Different Diets, Part 1

If you want to shed a few pounds you'll choose to diet with a plan that suits your body, making sure you're getting enough of all the nutrients and vitamins you need rather than opting for the one which claims the quickest weight loss. Won't you? The world of diets is a multimillion-pound industry steeped in controversy; so, before you make a commitment to one diet scheme, read our guide.

The Blood Type Diet

What is it? Dr. Peter D'Adamo's *Eat Right for Your Type* book is based on the premise that different blood types have different internal chemistries, so each one should eat certain foods to lose weight.

Pros: It's very specific – you have to stick to food lists – so it's good if you like following rules.

Cons: The science behind the diet is a little dubious. It's tough to follow. You might have to cut out alcohol.

Health risks: You could be eliminating foods that give you much-needed nutrients.

Does it work? It restricts calorie intake, so you should lose weight; but will you be able to stick to it?

Dr. Atkins Diet

What is it? The theory behind the book, *Dr. Atkins New Diet Revolution*, is that your body uses both carbohydrates and fat as an energy source; so, if you cut down on carbohydrates, you'll burn off fat – and lose weight.

Pros: You're encouraged to eat lots of protein and fat, such as red meat and cheese; so many Atkins fans say they never feel hungry or deprived.

Cons: It's almost impossible to follow if you're vegetarian. Cutting down on bread, cereal, potatoes, pasta and rice is hard, especially when eating out. Alcohol is a no-no.

Health risks: The American Heart Association believes that high-protein, high-fat diets could prevent you from getting some important nutrients, as well as increasing your risk of coronary heart disease and causing fatigue.

Does it work? There‘s no scientific evidence to support this kind of diet, but the book has sold over 10 million copies worldwide.

Different Diets, Part 2

Single food diets

What are they? These recommend that you eat one type of food as much as you like or at a particular time. The Grapefruit Diet (eat one before every meal to burn fat) and the Cabbage Soup diet (eat as much you like for a week) fit into this category.

Pros: Calorie intakes are low, so you will lose weight – but you won‘t necessarily keep it off.

Cons: You have to love cabbages and grapefruits. Single food diets often require you to drink lots of caffeine, which isn‘t good.

Health risks: These diets are too restrictive – many people who follow them end up feeling weak and dizzy.

Do they work? There‘s no evidence that grapefruits have special fat-burning qualities; it‘s the low calorie intake that triggers weight loss – the same goes for the cabbage soup diet.

The Zone Diet

What is it? *The Zone Diet,* by Barry Sears Ph.D, suggests that eating fewer carbohydrates and more fat and protein helps you to balance hormones and lose weight, provided you follow a strict plan that divides every meal into 40% carbohydrates, 30% protein and 30% fat.

Pros: It‘s calorie-controlled so, if you stick to it, you should lose weight.

Cons: The science behind this diet is complicated. It‘s not easy to divide every meal into 40/30/30.

Health risks: The British Nutrition Foundation recommends an intake of 50% carbohydrate, 35% fat and 15% protein – which makes The Zone‘s recommendations unhealthy.

Does it work? Madonna and Caprice loved it, but weren‘t they already skinny?

- Which statement is the most accurate?

416. Dr. Peter D'Adamo's *Eat Right for Your Type* book is based on the premise that different blood types have different internal chemistries. The science behind the diet is a little dubious. You will be eliminating foods that give you much-needed nutrients.

417. The theory behind the book, *Dr. Atkins New Diet Revolution*, is that your body uses both carbohydrates and fat as an energy source; so, if you cut down on carbohydrates, you'll burn off fat – and lose weight. The American Heart Association believes that with this diet there is no increase in your risk of coronary heart disease.

418. Single food diets recommend that you eat one type of food as much as you like or at a particular time. The Grapefruit Diet (eat one before every meal to burn fat) and the Cabbage Soup diet (eat as much you like for a month) fit into this category.

419. The science behind the Zone diet is complicated. It's not easy to divide every meal into 40/30/30. The British Nutrition Foundation recommends an intake of 60% carbohydrate, 30% fat and 15% protein – which makes The Zone's recommendations unhealthy. Madonna and Caprice loved it, but weren't they already skinny?

Eating Disorders: Intro?

We live in a body-conscious society, so it's not surprising that every now and again we decide to do something positive to boost our confidence.

Swapping a bag of chips for a baked spud is a good idea, but taking things too far – by being obsessed over food or becoming too concerned with our body image – puts our health at risk. Despite the fact that most of us know this, the Eating Disorders Association estimates that around 165,000 people in the UK are currently being treated for eating disorders, with many more remaining undiagnosed.

Who suffers from these illnesses?

Anyone can develop an eating disorder, and though young women (aged 15-25) are most susceptible a growing number of young men (around 10%) also suffer.

Why do they happen?

A lot of people blame the media and our increasing obsession with ultra-skinny models and performers. Experts reckon that although these things play a part in shaping the way we see ourselves and our bodies, the real causes are much more complicated and more likely to be about our own feelings of self-worth.

People who overcome these illnesses often describe eating as the only thing they could control in a time when they felt unable to cope with other events or emotions.

What triggers these illnesses is deeply personal, but sufferers frequently give these reasons:

- Stress caused by problems with your family, friends, partner, job or study
- Traumatic events like death or divorce
- Setting high standards for yourself, or feeling pressured by others
- Suffering low self-esteem, possibly due to bullying
- Feeling anxious about the natural weight gain that happens during puberty, or fearing adulthood and the responsibilities it brings

How can they be treated?

Whether you‘re a sufferer or worried about someone else, recognizing and accepting that something‘s wrong is the first step.

The next step is to let someone you trust know what‘s happening. This could be a friend, relative, colleague, teacher, physician or eating disorder professional.

From here, you can start getting some professional advice about what do next. If you haven‘t already spoken to one, you can contact your physician, a specialist, or an eating disorders organisation.

Though treatments vary, sufferers are normally offered counselling, therapy, diet and nutrition advice, access to support groups and, if needed, medication. And it‘s important to remember that sufferers are only to be taken to a hospital if they‘re extremely ill.

- Which statement is the most accurate?

420. Good nutrition and exercise will always help people to reduce their medication considerably, which is something to strive for because all conventional medicine helps one area but harms another. The liver, kidneys etc., are damaged from any use of conventional medicine.

421. If you suffer from insomnia, swimming is excellent. Also walking on our planet earth with bare feet soaks up negative energy, which helps us have a good night‘s sleep.

422. Electricians have concluded that if a person receives a strong electric shock, if possible, put him in the shower and turn it on. The water will short circuit the fuse and stop the flow of harmful electrical energy.

423. Most of us tend to pamper our bodies and never really challenge them. The moment we are tired we get off the exercise machine and dab the little bit of sweat that is starting to form on our foreheads. Right from the first day we need to give ourselves a vigorous 30 minutes workout.

What is it?

Anorexia Nervosa is an eating disorder that affects around 5% of young women, with most cases starting at around 16-17 years of age. Teenage men can also suffer, but the numbers are a lot lower at around 5-10% of total sufferers.

People with Anorexia Nervosa limit the amount they eat and drink to control how their body looks. As the body and brain become increasingly starved, the ability to think rationally about food is affected, and they develop a distorted view of their body – seeing themselves as fat, when they‘re anything but that. Aside from extreme weight loss, anorexic people may suffer from the following:

- Dizzy spells and fainting
- Feeling cold, poor blood circulation
- Rough, dry skin
- Constipation, tummy swelling and abdominal pain
- Irregular periods
- Weakened bones
- Lack of sex drive

In the long term, it can make getting pregnant more difficult and increase the risk of developing osteoporosis (brittle bones). A few cases even lead to death.

The most obvious sign of anorexia is extreme weight loss, but other things like mood swings, secrecy, an obsession with calories, food and thinness, and making excuses not to eat are also good clues.

How is it treated?

Getting over anorexia is usually a long process, but it‘s not impossible and around 50% of sufferers do fully recover. There are several ways of treating it, using everything from psychological treatments like cognitive behavioural therapy (which helps people understand their condition and change the way they feel and behave towards it) to self-help techniques.

If you want to get help yourself or if you‘re worried that someone you know might be a sufferer, it‘s a good idea to start the ball rolling by talking things through with an expert. This could be your doctor or someone from an organisation specialising in eating disorders.

Bulimia Nervosa

What is it?

Bulimia Nervosa is an eating disorder that affects mostly females (around 1%) in their midteens to late 20s. Sufferers get overwhelming urges to binge on food and then, to avoid gaining weight, they purge what they‘ve eaten by throwing up, taking laxatives, over-exercising, or all three. It‘s difficult to spot bulimia, as it doesn‘t necessarily lead to weight loss, and many sufferers confine their activities to their own home. Also, bulimia can come and go - it isn‘t necessarily permanent.

Physically, bulimia can lead to the following:

- Bad skin
- Irregular periods
- Exhaustion
- Damage to the throat and tooth decay caused by frequent vomiting

In the long term, a lack of nutrients can affect how internal organs work, and some sufferers have died of heart attacks, though this is rare.

Obvious signs of bulimia include sneaking off to vomit after eating, secrecy, mood swings and fluctuating weight.

What is binge eating?

Though only recognized recently, binge eating is thought to be the most common eating disorder. Sufferers eat huge amounts of food but, unlike bulimics, they don‘t try to get rid of it through laxatives, exercise or vomiting. They often eat very quickly until they feel uncomfortably full, even if they‘re not hungry.

10 per cent of binge eaters are believed to be obese, which is the major health risk of binge eating.

The most obvious sign of binge eating is weight gain. Sufferers also tend to feel guilt and anxiety, and may hide food packaging to disguise their problem.

How is it treated?

Like anorexia, getting over bulimia can often take a long time. The options are pretty much the same, ranging from self-help techniques to psychological treatments.

If you feel you may be suffering from Bulimia there is help out there. For useful contacts see the Further Info section.

- Which statement is the most accurate?

424. People with Anorexia Nervosa limit the amount they eat and drink to control how their body looks. As the body and brain become increasingly starved, the ability to think rationally about food is affected, and they develop a distorted view of their body – seeing themselves as thin, even though they are fat.

425. *The Zone Diet,* by Barry Sears Ph.D, suggests that eating fewer carbohydrates and fats helps you to balance hormones and lose weight, provided you follow a strict plan that divides every meal into 40% carbohydrates, 30% protein and 30% fat.

426. The advantage of the *Zone Diet* is that it's calorie-controlled, so, if you stick to it, you should lose weight. However, the disadvantage is that it's complicated, not easy to follow.

427. Binge eating is thought to be the most common eating disorder. Sufferers eat huge amounts of food and then try to get rid of it through exercise. Also, they often eat very quickly until they feel uncomfortably full, even if they're not hungry.

In conclusion here are some facts on "soft drinks."

Health Impact of Soft Drinks

What do you drink when you are thirsty? Reach for a soft drink? "Ironically, the most popular choices—sugar-sweetened carbonated soft drinks—do not even quench thirst," states *The New York Times.* "Rather, their high sugar content can leave you thirstier, setting off a thirst cycle that supports soaring soft-drink consumption." A typical 12-ounce [340 g] soda contains nine teaspoons of sugar and "supplies no nutrients other than sweet calories." It

may also contain up to half as much caffeine as in a cup of coffee. Then there is the acidity—in colas, about the same as that of vinegar—that attacks tooth enamel. Diet, non-caffeine, and “natural” sodas address some problems but leave others and, usually, do not add anything to the soda‘s nutritional value.

The soft-drink industry has consistently portrayed its products as being positively healthful, saying they are 90% water and contain sugars found in nature. A poster that the National Soft Drink Association has provided to teachers states:

As refreshing sources of needed liquids and energy, soft drinks represent a positive addition to a well-balanced diet....these same three sugars also occur naturally, for example, in fruits....in your body it makes no difference whether the sugar is from a soft drink or a peach.[23]

M. Douglas Ivester, Coca-Cola‘s chairman and CEO, defending marketing in Africa, said, “Actually, our product is quite healthy. Fluid replenishment is a key to health....Coca-Cola does a great service because it encourages people to take in more and more liquids.”[24]

In fact, soft drinks pose health risks because of both what they contain (for example, sugar and various additives) and what they replace in the diet (beverages and foods that provide vitamins, minerals, and other nutrients).

Obesity

Obesity increases the risk of diabetes and cardiovascular disease and causes severe social and psychological problems in millions of Americans. [25]

Numerous factors – from lack of exercise to eating too many calories to genetics – contribute to obesity. Soda pop adds unnecessary, non-nutritious calories to the diet, though it has not been possible to prove that it (or any other individual food) is responsible for the excess calories that lead to obesity. However, one recent study found that soft drinks provide more calories to overweight youths than to other youths.[26]

Obesity rates have risen in tandem with soft-drink consumption, and heavy consumers of soda pop have higher calorie intakes.[27]

Regardless of whether soda pop (or sugar) contributes to weight gain, nutritionists and weight-loss experts routinely advise overweight individuals to consume fewer calories – starting with empty-calorie foods such as soft drinks. The National Institutes of Health recommends that people who are trying to lose or control their weight should drink water instead of sugar-sweetened soft drinks.[28]

Bones and Osteoporosis

People who drink soft drinks instead of milk or other dairy product drinks will likely have lower calcium intakes. Low calcium intake contributes to osteoporosis, a disease leading to fragile and broken bones.[29] Currently, 10 million Americans have osteoporosis. Another 18 million have low bone mass and are at increased risk of osteoporosis. Women are more frequently affected than men. Considering the low calcium intake of today‘s teenage girls, osteoporosis rates may well rise.

The risk of osteoporosis depends in part on how much bone mass is built early in life. Girls build 92% of their bone mass by age 18,[30] but if they don't consume enough calcium in their teenage years they cannot "catch up" later. That is why experts recommend higher calcium intakes for youths 9 to 18 than for adults 19 to 50. Currently, teenage girls are consuming only 60% of the recommended amount, with soft-drink drinkers consuming almost one-fifth less than nonconsumers.[31]

One study found that children 3 to 15 years old who had suffered broken bones had lower bone density, which can result from low calcium intake.[32]

- Which statement is the most accurate?

428. A typical 12-ounce soda contains seven teaspoons of sugar and "supplies no nutrients other than sweet calories." It may also contain up to half as much caffeine as in a cup of coffee. Their high sugar content can leave you thirstier, setting off a thirst cycle that supports soaring soft-drink consumption.

429. The soft-drink industry has consistently portrayed its products as being positively healthful, saying they are 90% water and contain sugars found in nature. Then there is the acidity—in colas, about the same as that of vinegar—that attacks tooth enamel. Diet, non-caffeine, and "natural" sodas address these problems.

430. Soft drinks pose health risks because of both what they contain (for example, sugar and various additives) and what they replace in the diet (beverages and foods that provide vitamins, minerals, and other nutrients).

431. The risk of osteoporosis depends in part on how much bone mass is built early in life. Girls build 92% of their bone mass by age 18,[30] but if they don't consume enough calcium in their teenage years they cannot "catch up" later. That is why experts recommend higher calcium intakes for youths 8 to 18 than for adults 19 to 60.

Tooth Decay

Refined sugar is one of several important factors that promote tooth decay (dental caries). Regular use of soft drinks promotes decay because they bathe the teeth in sugar-water for long periods of time during the day. An analysis of data from 1971-74 found a strong correlation between the frequency of between-meal consumption of soda pop and dental caries.[33]

A large survey in California found that children (ages 6 to 8, and age 15) of less-educated parents have 20% higher rates of decayed and filled teeth.[35] A national study found that African-American and Mexican-American children (6 to 18 years old) are about twice as likely to have untreated caries as their white counterparts.[36] For people in high-risk groups, prevention is particularly important.

To prevent tooth decay, even the Canadian Soft Drink Association recommends limiting between-meal snacking of sugary and starchy foods, avoiding prolonged sugar levels in the mouth, and only eating sugary foods and beverages with meals. Unfortunately, many heavy drinkers of soft drinks violate each of those precepts.

Heart Disease

Heart disease is the nation's number one killer. Some of the most significant causes are diets high in saturated, *trans*-fat and cholesterol, cigarette smoking, and a sedentary lifestyle. In addition, in many adults a diet high in sugar may also promote heart disease.

High-sugar diets may contribute to heart disease in people who are "insulin resistant." Those people, an estimated one-fourth of adults, frequently have high levels of triglycerides and low levels of HDL ("good") cholesterol in their blood. When they eat a diet high in carbohydrates, their triglyceride and insulin levels rise. Sugar has a greater effect than other carbohydrates.[37] The high triglyceride levels are associated with a higher risk of heart disease.[38] It would make sense for insulin-resistant people, in particular, to consume low levels of regular soft drinks and other sugary foods. More research is needed on insulin resistance in adolescents.

Kidney Stones

Kidney (urinary) stones are one of the most painful disorders to afflict humans and one of the most common disorders of the urinary tract. According to the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), a unit of the National Institutes of Health, more than 1 million cases of kidney stones were diagnosed in 1985.[39] NIDDK estimates that 10 percent of all Americans will have a kidney stone during their lifetime. Several times more men, frequently between the ages of 20 and 40, are affected than women. Young men are also the heaviest consumers of soft drinks.

After a study suggested a link between soft drinks and kidney stones, researchers conducted an intervention trial.[40] That trial involved 1,009 men who had suffered kidney stones and drank at least 5 or more ounces of soda pop per day. Half the men were asked to refrain from drinking pop, while the

others continued. Over the next three years, drinkers of Coca-Cola (and other cola beverages that are acidified only with phosphoric acid) who reduced their consumption (to less than half their customary levels) were almost one-third less likely to experience recurrence of stones. Among those who usually drank soft drinks acidified with citric acid (with or without phosphoric acid), drinking less had no effect. While more research needs to be done on the cola-stone connection, the NIDDK includes cola beverages on a list of foods that doctors may advise patients to avoid.

Additives: Psychoactive Drugs, Allergens, and More

Several additives in soft drinks raise health concerns. Caffeine, a mildly addictive stimulant drug, is present in most cola and “pepper” drinks, as well as some orange sodas and other products. Caffeine‘s addictiveness may be one reason why six of the seven most popular soft drinks contain caffeine.[41] Caffeine-free colas are available, but they account for only about 5% of colas made by Coca-Cola and Pepsi-Cola.[42] On the other hand, Coca-Cola and other companies have begun marketing soft drinks such as Surge, Josta, and Jolt, with 30% to 60% more caffeine than Coke and Pepsi contain.

In the years1994-96, the average 13- to 18-year-old boy who drank soft drinks consumed about 1-2/3 cans per day. Those drinking Mountain Dew would have ingested 92 mg of caffeine from that amount (55 mg caffeine/12 ounces). That is equivalent to about one six-ounce cup of brewed coffee. Boys in the 90th percentile of soft-drink consumption consume as much caffeine as is in two cups of coffee; for girls the figure is 1½ cups of coffee.

One problem with caffeine is that it increases the excretion of calcium in urine.[43] Drinking 12 ounces of caffeine-containing soft drink causes the loss of about 20 milligrams of calcium, or two percent of the U.S. RDA (or Daily Value). That loss, compounded by the relatively low calcium intake in girls

who are heavy consumers of soda pop, may increase the risk of osteoporosis.

Caffeine can cause nervousness, irritability, sleeplessness, and rapid heart beat.[44] Caffeine causes children who normally do not consume much caffeine to be restless and fidgety, develop headaches, and have difficulty going to sleep.[45] Also, caffeine's addictiveness may keep people hooked on soft drinks (or other caffeine-containing beverages). One reflection of the drug's addictiveness is that when children aged 6 to 12 stop consuming caffeine, they suffer withdrawal symptoms that impair their attention span and performance.[46]

Several additives used in soft drinks cause occasional allergic reactions. Yellow No. 5 dye causes asthma, hives, and a runny nose.[47] A natural red coloring, cochineal (and its close relative carmine), can cause life-threatening reactions.[48] Dyes can cause hyperactivity in sensitive children.[49]

In diet sodas, artificial sweeteners may raise concerns. Saccharin, which has been replaced by aspartame in all but a few brands, has been linked in human studies to urinary-bladder cancer and in animal studies to cancers of the bladder and other organs.[50] Congress has required products made with saccharin to bear a warning label. Several cancer experts have questioned the safety of acesulfame-K, which was approved in 1998 for use in soft drinks.[51] Therefore, these products should be submitted to even more stringent testing.

http://www.cspinet.org/sodapop/liquid_candy.htm

Which statement is the most accurate?

431.Regular use of soft drinks promotes decay because they bathe the teeth in sugar-water for long periods of time during the day. An analysis of data from 1971-74 found a strong correlation between the frequency of between-meal consumption of soda pop and dental caries.

432.High-sugar diets may also contribute to heart disease in people who are "insulin resistant." Those people, an estimated one-fourth of adults, frequently have high levels of triglycerides and low levels of HDL ("good") cholesterol in their blood. When they eat a diet high in carbohydrates, their triglyceride and insulin levels rise. Sugar has a much greater effect than other carbohydrates.

433. After a study suggested a link between soft drinks and kidney stones, researchers conducted an intervention trial.[40] That trial involved 1,009 men who had suffered kidney stones and drank at least 3 or more ounces of soda pop per day. Over the next three years, drinkers of Coca-Cola (and other cola beverages that are acidified only with phosphoric acid) who reduced their consumption (to less than half their customary levels) were almost one-third less likely to experience recurrence of stones.

French Fries Surprise!

http://www.drgreene.com/21_974.html

The World Health Organization has called an emergency meeting for the end of June 2002 to look at an urgent health concern with regards to potato chips, French fries, and some other fried and baked foods. Potato chips (crisps) and French fries are the most common foods found on Kids Meal menus. Nutrition experts have long been concerned that these foods provide high fat and empty calories. But everyone knew that. Mounting new evidence suggests that they also contain high levels of a toxic chemical called acrylamide. **Acrylamide is known to cause DNA damage, which can result in reproductive damage and cancer**. It is strictly regulated in drinking water to avoid contamination from the manufacture of plastics, but not in food. When starchy foods are heated to high temperatures, they seem to spontaneously form acrylamide, even though none was present in the raw ingredients. In recent studies, potato chips had, by far, the highest levels (500 times the amount allowed in water), followed by French fries (100 times the allowed amount). A tougher European Union drinking water directive due to take effect at the end of 2003 will lower the amount of acrylamide in water even further. But over a billion bags of potato chips are sold every year, and French fries are ubiquitous.

Which statement is the most accurate?

434.Congress has required products made with saccharin to bear a warning label. In diet sodas, artificial sweeteners may raise concerns. Aspartame, which has been replaced by saccharin in all but a few brands, has been linked in human studies to urinary-bladder cancer and in animal studies to cancers of the bladder and other organs.

435. Acrylamide is known to cause DNA damage, which can result in reproductive damage and cancer. Mounting new evidence suggests that French fries also contain high levels of the toxic chemical acrylamide.

436. The World Health Organization has called an emergency meeting for the beginning of July 2003 to look at an urgent health concern with regard to potato chips, French fries, and some other fried and baked foods.

SOURCE OF MATERIAL UNLESS OTHERWISE INDICATED:
http://www.bbc.co.uk/radio1/onelife/health/healthy_mind/phobia5.shtml

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