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Childhood Nutrition - The Foundation for a Life time of Health James L. Holly M.D. July 24, 2003 Your Life Your Health - *The Examiner*

Poor nutrition and poor lifestyle choices during childhood and adolescence have immediate effects on health, and they predispose us to debilitating degenerative diseases later in life. Generally, we approach good nutrition on a day-to-day basis. We are told to eat at least five servings of fruits and vegetables each day. We read about recommended daily intakes of the essential nutrients. Package instructions say, "take three capsules daily." While such guidelines can help to establish and maintain good nutritional habits, we should remember that optimal nutrition is only valuable if its impact on our diet spans a long period of time.

Medical research has established an indisputable link between nutrition and health. Literally hundreds of scientific studies have indicated a strong association between diet and the incidence of chronic degenerative disease. We know, for example, that by eating a varied and balanced diet that is low in saturated fat and rich in fruits, vegetables, and complex carbohydrates (particularly fiber), we can reduce the risk of heart disease, cancer, and Type II diabetes--all leading causes of death in industrialized countries. Diets rich in tomato products containing lycopene are known to reduce the incidence of prostate cancer in men. And diets rich in green leafy vegetables, particularly those containing lutein, are associated with reducing the risk of macular degeneration.

Further research has linked the intake of certain vitamins and minerals to long-term health. Advanced intakes of vitamin E (400-800 IU per day) are linked to a reduction of cardiovascular disease. Calcium and vitamin D are known to reduce bone loss and the risk of osteoporosis in post-menopausal women. And folic acid, vitamin B12 and vitamin B6 can lower blood homocysteine, a risk factor for heart disease. In short, good nutrition--achieved through a balanced diet containing optimal levels of appropriate vitamins and minerals--goes hand in hand with good health.

But the story doesn't end there. Recent scientific evidence shows that good nutrition is a lifelong imperative.

It is not something we can put off until "tomorrow" or postpone until our adult or senior years. Rather, we must eat well and practice good nutritional habits at all stages of life -- including childhood and adolescence -- if we are to optimize our long-term health.

Medical evidence shows that chronic degenerative diseases are not necessarily diseases of old age. Their beginnings are often evident in children, adolescents, and young adults. Poor nutrition and poor lifestyle choices during childhood and adolescence have immediate effects on health, and they predispose us to debilitating degenerative diseases later in life.

We know for example, that heart disease starts in childhood. A recent article published in the

New England Journal of Medicine shows the beginnings of atherosclerosis in children 2-15 years old. The study further reported that the prevalence of atherosclerosis increases with age, affecting about 30 percent of adolescents 16-20 years old, 50 percent of young adults 21-25 years old, and 70 percent of adults 26-39 years old.

Other research shows that:

30-40 percent of heart disease deaths directly result from obesity and high blood

cholesterol. Childhood obesity doubles the risk of adult obesity. (Bad habits start early.)

The most effective strategy for preventing heart disease in adult-hood is to prevent obesity in childhood.(12)

Unfortunately, more Americans (including children) are overweight today than in 1980. We are getting heavier, not leaner, a trend that we must reverse if we are to significantly reduce rates of heart disease.

Similarly, most cancers develop over decades. Our cells have many safeguards against cancerous proliferation, and it generally takes tens of years for enough genetic damage to accumulate to override all the safeguards. And once a cell becomes cancerous, it can take decades more before a tumor is detected. Because we estimate that 30-35 percent of all cancers are related to diet, we can logically assume that childhood diet plays a significant role in defining adult cancer risk. Importantly, growing medical evidence supports this assumption.

Osteoporosis is a degenerative disease tied to poor nutrition during early years. Epidemiological studies show that maintaining good calcium nutrition and attaining high bone mineral density during adolescence lead both to improved bone mineral density and to reduced risk of osteoporosis later in life. In fact, it is estimated that adolescent girls who increase bone mass by as little as 5 percent during their teen years can reduce the risk of osteoporosis after menopause by 40 percent.

The essential point, then, is that good nutrition is a lifelong imperative. To optimize our health over a lifetime, we must optimize nutrition during all stages of life. The time to eat well and practice good nutritional habits is now, whether we are 4, 14, 34, or 64 years old. It is essential that we teach our children well to ensure that they develop good nutritional habits early. Nor should we neglect to educate our parents, because it is never too late to learn the basics of good nutrition and to benefit by incorporating them in our lives.

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Most of us would agree that adults can realize immediate health benefits from a quality diet and adequate amounts of essential nutrients. But what about our children? At what point in childhood does it become critical that growing bodies have the necessary vitamins, minerals, antioxidants and other factors that we know are crucial in adult physiology? When can a child's nutritional habits (good or bad) begin to affect his or her prospects for lifelong health?

Are Your Kids Eating Right?

If your kids are eating right, they're the exception, not the rule. According to a 1997 survey of US children, when the actual eating habits of children were compared with nutritional levels recommended by the Food Guide Pyramid, several deficiencies became apparent. For

instance: Only one percent of children met all dietary recommendations.

Only five percent met the recommendations for four or more food

groups. Fat intake for children averaged 35 percent of their energy

intake.

Added sugars comprised 15 percent of total calories.

A 1996 survey found that only one out of five American children eats the recommended five or more servings of fruits and vegetables per day. And nearly one quarter of all vegetables eaten by children and adolescents are French fries. Our children eat too much fat and refined sugar, and they simply do not get enough essential vitamins, minerals, fatty acids, or fiber in their diets.

Children need a nutritional foundation for the growth demands that occur in adolescence when they need to rely on the nutrient store they developed during childhood.

But why worry about what our children eat? After all, they're just kids; they have a whole lifetime to start eating right

Unfortunately, medical evidence shows that later may be too late. Chronic degenerative diseases are not diseases of old age; rather, they originate in childhood. An unhealthy diet and poor eating habits begun in childhood often result in degenerative diseases later in life. The origin of heart disease, hypertension, and obesity is often found in poor childhood eating patterns. Obese children are twice as likely to become obese adults; almost 10 percent of children between two and 15 already exhibit signs of atherosclerosis. Moreover, mounting evidence shows that a child's diet is linked to the occurrence of adult prostate cancer, breast cancer, and colon cancer. Indeed, 30-35 percent of cancers may be related to diet.

In addition to a steady demand of 1500-2000 calories a day, children need vitamins and minerals in increasing amounts as they grow. Deficiencies in these essential nutrients slow growth and development, increase the occurrence of disease and infection, and can also contribute to behavioral problems. Many traits that occur in "hyperactive" or "learning disabled" children can be traced to deficiencies in folic acid or other B vitamins. Moreover, adequate amounts of such key nutrients as zinc, vitamin B-6, magnesium, and calcium are missing from the diets of more than 50 percent of children.

Nevertheless, it isn't enough simply to make sure children get the recommended daily allowance (RDA) of vitamins and minerals (which are established at levels to prevent deficiency symptoms, not to achieve optimal health). We owe it to them to provide a complete and balanced combination of vitamins, minerals, and antioxidants. We can ensure the strong nutritional base that's essential for good health in adolescence and adulthood by starting our children's lifelong health-related habits early. This includes physical activity, good eating habits, and reliable supplementation.

Remember, it is your child's life and it is your child's health. (This information has been complied from information provided by USANA, a major supplier of pharmaceutical grade nutritional supplements. www.usana.com)