

# AN INVESTMENT IN HEALTH

By

**Jason Shea C.S.C.S., PES**

As I sit watching my newborn son, I wonder what he will be like as he grows older. Will he be a great student, great athlete, or even musician? What challenges will he face and how can I help? One of the most important things for any parent is their child's health as they develop through infancy to adolescence and on through adulthood. Where does a child's health rank on any parent's scale of importance. The child coughs for the first time, we grow amazingly concerned. As the child begins to develop I am sure there are many new issues that arise that we have no clue how to cure, and through concern we call the long list of various professionals to help us help our children. After all, there is no textbook on how to raise a child, though there are some helpful pointers and educational material on what to watch for and when to call the doctor.

As our children are growing, they are facing new challenges that we as adults did not face while we were adolescents. As these challenges increase, our children's health seems to be affected accordingly. Every few weeks on the news or on shows such as Good Morning America, new studies come out about the cutback in physical education, inactivity and the rise of obesity and its various side-effects which affect our youth. With these cutbacks, spending on items such as coffee, ice-cream, fast food, and video game systems increase year after year. One has to wonder if there is a direct connection.

The health of our youth, the future of our country is a very important subject to any parent. Between 1991 and 2003 the percentage of high school students enrolled in daily physical education decreased from 41.6% to 28.4%. Today only one third of students who live within one mile of school walk or bike there, and less than 3 percent of students living within two miles of school walk or bike there. (1) Health in the form of both physical and psychological well-being is of highest importance. Active lifestyles combined with proper nutrition can be a tremendous tool in the fight against obesity, injury, and emotional problems.

Obesity seems to be at the top of the list. With decreased activity levels and improper nutritional habits, a child may become obese, leading to inactivity, which may eventually lead to physical impairments, injury, and emotional disorders.

## **Obesity and Excessive Video Game Play**

In 1970, just 5 percent of American adolescents were obese. Today that number approaches 20 percent, according to Francine Kaufman, president of the American Diabetes Association (2). Obesity

and inactivity are two of the major culprits of many of the issues we are seeing with our youth today. Issues such as high blood pressure, Type 2 Diabetes, and chronic joint problems are among the most prevalent in our youth. Annual Health Care costs stemming from obesity are \$240 billion. To put in perspective, our Medical costs stemming from obesity are greater than the Gross Domestic Product of entire countries, such as South Africa at \$239 billion, Greece at \$225 billion, or even Ireland at \$200 billion. Not to mention Americans spend more than \$33 billion on various weight loss schemes and diet products. Pediatricians typically were not taught to treat Type 2 diabetes as it was mostly found in adults. Says Naomi Neufueled, a pediatric endocrinologist in Los Angeles, "In the early to mid 90s we were starting to see children not only with obesity, but diseases that I as a pediatrician was never trained to deal with. I was never really trained to deal with Type 2 diabetes. I went to medical school to take care of kids. Kids aren't supposed to have this disease (2)." A disease typically seen in adults is now seen in our youth.

If an investment in the health of our youth is not made, the projections by the Centers for Disease Control are not any brighter as they announced that one in three U.S. children born in 2000 could develop diabetes before they graduate from high school (2). Obesity is a side effect of inactivity and improper nutrition, as are high blood pressure and chronic joint pains and problems. According to a Consumer Affairs report in February 2007, "Teenagers who spend a lot of time planted in front of the TV are more likely to have higher blood pressure, regardless of whether they are overweight. Within the 12-15 year old age group, the study team found higher blood pressure to be especially associated with higher levels of watching television and video (3)." Did you know that nationally, 24% of households own a video game system as of 2007 (4). "More than one third of US adults online, 36.5% own a video game console, with 67% of all men in TV owning households aged 18-24, and 80% of those aged 12-17 owning game consoles (5). In the latter age group, 70% of those children play video games 1-4 hours per day, with 12% playing 5-9 hours per day (6)." Merrill Lynch predicts that the Nintendo Wii console will occupy around 30% of US households by 2011 (5), and nationally it is estimated that video consoles will generate \$16 Billion in 2007! One has to wonder, how much money is projected for funding physical education in that same time period. Could there be a direct link between these issues?

### **Low Back Pain**

Video and computer gaming is typically not an active sport, so excessive game playing adolescents are falling into the category of inactive. Joint pain and dysfunction are common among the inactive. A study conducted by the American Journal of Public Health, found that out of a total of 1242 total youth, that 30.4% had considerable Low Back Pain, with one third resulting in restricted activity and 7.3% seeking medical attention (7). They concluded through life-table analysis that by age 15, the prevalence of LBP increased to 36% (7). This study was conducted in 1992, when the physical education

participation was at least 13% greater (41.6% in 1992, 28.4% in 2003) and annual sales of Nintendo game consoles and game cartridges was about \$5-7 billion, compared to \$17 billion today (consoles alone).

### **Knee Pain and Injuries**

Knee problems are also prevalent in inactive adolescents. In 2006, the National Institute of Health issued the following statement, "overweight youth in the study were more likely than non-overweight youth to develop changes in the knee joint that make movement more difficult. Overweight youth were more likely to experience bone fracture, muscle and joint pain than were the non overweight group (8)." It would seem that a trend is beginning to form. For our youth television, video game, and computer usage is increasing, simultaneously along with obesity, blood pressure, low back pain, knee pain, while the physical fitness levels are decreasing. According to a report by the Archives of Pediatrics and Adolescent Medicine in the 2006 Consumer Affairs, "approximately one third of boys and girls age 12 to 19 in the United States do not meet standards for physical fitness (9)". If our money is not going toward physical education funding, then where is some of it being spent?

### **Food**

According to the Consumer Expenditure Survey put out by the US Bureau of Labor Statistics, in 2005, the average American spent \$5,931 on food with \$2,634 of this on food away from home (10). In her article "Why Eating Junk Food Just Isn't a Good Idea, Myers states "most Americans derive 20% of the calories they eat from junk foods. Ten years ago the majority of money used to buy food in the United States was spent to prepare meals at home. Today, over half of the money used to buy food is spent at restaurants" mainly at fast food restaurants (11)." This would equate to \$1186.20 worth of junk food for the year 2005. In 2003, the Australian Divisions of General Practice set out to determine what we are feeding our children by performing an audit on advertisements for junk food (food high in fat, sugar and/or salt with little nutritional value). Below is an excerpt from their findings.

"The audit found that during children's television programs there was an average of one junk food advertisement per ad break- in some cases up to three advertisements per ad break for different types of junk food. Over 99% of food advertisements broadcast during children's TV programming were for junk food. Disturbingly, there were no "healthy eating" messages broadcast during this time that promoted the benefits of a healthy and balanced diet."

"This analysis showed that children watching an average amount of two and half hours of television per day would have been exposed to 406 advertising messages encouraging them to eat junk food during this six week period. This equates to a total of 3 hours and 22 minutes of junk food advertising" the equivalent of one and half full-length movies of junk food ads. The 406 advertisements included 252 advertisements for

fast food (including hamburgers, pizza, and fried chicken); 84 advertisements for soft drinks; and 28 for ice cream products (12).ö

Did you know that öAmericans drink soda at an annual rate of about 56 gallons per person; that's nearly 600 twelve ounce cans of soda per person. And Coca Cola has set a goal of increasing the consumption of its products by at least 25% a year (13).ö It would seem that advertising works. I cannot remember the last time I saw a commercial for organic spinach and decided to go to the local supermarket and purchase some.

## **Coffee**

Coffee does have its benefits as it is high in antioxidants, which promote better functioning of the immune system. Does 3.1 cups per day (the average consumption among coffee drinkers according to the Specialty Coffee Association of America) tip the scale toward excessive dehydration (caffeine is a diuretic) or increased immune functioning. A report by the SCAA states, öspecialty coffee sales are increasing by 20% per year and account for nearly 8% of the \$18 billion U.S. coffee market. Americans consume 400 million cups of coffee per day making the US the leading consumer of coffee in the world. The US imports in excess of \$4 Billion worth of coffee per year (14).ö No wonder we see Dunkin Donuts commercials every morning while watching Good Morning America or Sportcenter (Have you noticed they have changed from öits time to make the donutsö to öAmerica runs on Dunkinö). Speaking of Dunkin Donuts, did you know öOn average, 250 Cups of espresso and coffee drinks are sold per day at almost any espresso/coffee drive through business with a visible location (14).ö An interesting study would be how many of those cups have high fat cream and simple white sugar in them. The average price for brewed coffee is \$1.28 (14). One average a coffee drinker spends \$3.84/day on coffee.

## **Lottery Tickets**

Everybody wishes they would win the lottery, myself included. What we could do with \$1 million dollars, never mind \$100 million dollars. Have you ever met a lottery winner? Me neither. But I am sure he/she is thankful for our contribution to his/her \$100 million fortune. According to Hansen and Prante in their article, Lottery Taxes Divert Income from Retirement Savings, ö In Fiscal Year 2004, the average American spent \$184 on the lottery (this figure includes video lottery terminals) (15).ö In states such as Massachusetts and Rhode Island it was closer to \$50 and \$100 per month, respectively (15). The average gym membership runs about \$55 per month, according to IHRSA 2007.

## **Transportation**

According to the Average Annual Expenditures of all Consumer Units Consumer Expenditure Survey, 2003-2005 (US Department of Labor, US Bureau of Labor Statistics 2006) the average spent on a vehicle purchase was \$3544 (10). Cars are a necessity, but have you ever asked yourself why you

would like to own an S Mercedes (MSRP \$85,400)? The answer may be in the S, Serious Luxury. The average car repair bill runs between \$300-\$350, while the average oil change costs \$25-\$30 (multiplied by 3-4 average per year = \$75-\$120 on oil changes). Not to mention gasoline. Cars are a necessity, and the gasoline to fuel these cars is a necessity. In 2005 we spent on average \$2013 on gasoline and motor oil to fuel and maintain our vehicles. That is 4 times as much as we spend on fruits and vegetables to fuel our human vehicles.

## **Medication**

Watch TV any night during the primetime hours (8-10pm) and count how many sleep medication, pain relief medication, high blood pressure, and weight loss medications commercials you see. (Pain medication commercials for Vioxx and Celebrex used to be on all the time just a couple of years ago, until people started suffering övery seriousö side effects from Vioxx. That was quickly pulled off the market before anybody made a big stink about it.) Now, watch TV in the morning and count how many öleaky faucetö menø commercial you see, or once again, how many pain relief commercials you see. Have you noticed how many Nascar (high visibility sport) vehicles are sponsored by pharmaceutical companies? Tylenol, Glaxosmithkline, and Pfizer (Viagra has its own car) to name a few. This number tells us Dr.ø are prescribing, and people are buying. The average spent on OTC medications in 2000 was \$19 billion, with households spending \$185 per in 2007 (17). How much have these people spent on their preventative health, such as corrective exercise, postural correction, neuromuscular therapy, dietician, osteopathic specialist, etc.. From these commercials, it is safe to assume these pharmaceutical companies are making money, in that it costs up to \$2500 to buy a 30 second commercial television time on a major network (18) at these times. Since these companies are making money, people must be buying.

Therefore, it is safe to assume a certain percentage of the population is not sleeping, has various forms of chronic pain, has high blood pressure, and are trying to lose weight. That is a lot of medication. Chronic pain will decrease ones movement, therefore creating an inactive lifestyle. With inactivity comes a change in sleep patterns, leading to more inactivity and less physical recovery for the body. (The first 4 hours of sleep are dedicated to physical repair, the last four are dedicated toward mental repair (19).) How many sedentary youth are getting 8 hours of sleep between the hours of 10 and 6? Eventually obesity may creep in with all this inactivity, leading to high blood pressure and other ailments. Could this have been prevented with a proper postural analysis and physical education at a young age? The proper posture would create proper movement mechanics, leading to decreased risk of chronic joint pain and injury (highly recommend reading Pain Free and Health Through Motion, by Pete Egoscue). The exercise education would expose our youth to an active lifestyle and its benefits at a very

young age, therefore creating a healthy habit to take them through adulthood. The body is made for motion, and it functions best when it has adequate amounts of PROPER motion. Try resting on the couch for one week straight and see how you feel. The last time you were sick and laid around all week, how did your body feel at the end? Once again, the human body is designed for motion.

## **Ice Cream**

Now there is nothing wrong with eating ice-cream, but everything in moderation. Have you ever wondered how much we as Americans spend on Ice Cream. According to the International Dairy Foods Association (IDFA), in 2005 total U.S. sales of ice cream and frozen desserts reached \$21.6 billion. Of that total, \$8.2 billion was spent on products for "at home" consumption, while \$13.5 billion was spent on "away from home" frozen dessert purchases (scoop shops, foodservice and other retail sales outlets). Ice cream and related frozen desserts are consumed by more than 90% of households in the United States (20). So with these figures, the average citizen of the U.S. spent \$73.38 on ice-cream (21.6 billion/ 298,444,215 Population July 2006 est.) in 2006.

## **A FEW INTERESTING FACTS ABOUT PAIN**

### ***Did you know***

- Much of America is hurting: The majority of adults (57%) in this country have experienced chronic or recurrent pain in the past year.
- 1 in 4 Americans suffer from chronic pain and 1 in 10 takes prescription medicine to manage it
- 83 million Americans reported that pain frequently affects their participation in some activities
- Among the major adjustments that chronic pain sufferers have made are such serious steps as taking disability leave from work (20%), changing jobs altogether (17%), getting help with activities of daily living (13%) and moving to a home that is easier to manage (13%).
- 36 million Americans have missed work in the past year due to pain
- More than 2/3 of all full-time employees (68%), the equivalent of more than eighty million full time employees, suffer from pain related conditions.
- 4 in 5 Americans believed aches and pains were a part of getting older and 64 percent would only see a doctor when they could not stand the pain any longer.
- 40% of those with pain say that their pain interferes with their productivity and ability to work, while 59% say that their pain interferes with their ability to sleep.
- 1 in 5 Americans over 60 takes medication to control pain that lasts for 6 months or more. This represents 18% of Americans in this age group.
- Two thirds of pain sufferers expect to have to live with at least some pain for the rest of their lives, compared with only 30% who expect to become pain-free because of a cure or as a result of treatment medications.

## Health and Fitness

\$17.6 billion. That is the total US industry revenues in 2006 for US health clubs. To put this in perspective, national total gym membership is \$4 billion less than what we spend on Ice Cream per year. It is almost \$1 billion less than we spend on coffee. The good news is, as of 2007, it is still \$1.6 billion more than we spend on video game consoles. As mentioned earlier, in 2000 Americans spent over \$110 billion on fast food, while in 2006 the annual health care cost stemming from obesity is \$240 billion. Yet, health club revenue across the country was \$17.6 billion. That is 16% of what was spent on fast food, 7.3% of health care costs stemming from obesity alone. \$17.6 billion is less than each of the top 10 pharmaceutical companies earned in 2006 (Pfizer at \$52.5 billion (#1) down to Johnson and Johnson at \$19.38 billion (#10)). According to the National Retail Federation New Release in July 2006, total back to school shopping was approximately \$17.6 billion dollars, the same total as health club revenue. With the cutbacks in physical education (between 1991 and 2003 the percentage of high school students enrolled in daily physical education decreased from 41.6% to 28.4%.) where can our youth go to learn more about health and fitness?

Health clubs and specialty health clubs are the next obvious choice. Through expert (NSCA, NASM, CHEK, ACSM) guidance our youth can learn the advantages of proper movement mechanics and increased strength (decreased risk of low back and knee pain, increased performance through efficiency of motion), as well as the benefits of a healthy active lifestyle (decreased obesity and its side effects including high blood pressure, type 2 diabetes, cardiovascular problems). These are lessons that can be engrained in our youth for a lifetime, perhaps proving many of the aforementioned projections wrong. After all, for the cost of your average babysitter (\$8-\$13 per hour: The Imperfect Parent, July 2006) you can enroll your child in numerous out-of-school physical education camps and healthy lifestyle seminars. The average cost of a personal trainer runs between \$65-\$100 per hour, while the average cost of a Rolex watch is \$6,000. One gives you perfect time, while the other gives you more of it. Which would you rather have?

In conclusion, as participation in physical education decreases, participation in sedentary lifestyle activities (game console playing, watching television, and computer usage) increases. With these increases so too increases our appetite for fast food, soda,

and ice-cream. The combination of decreased activity and increased junk food leads to obesity. With obesity comes increased incidence of high blood pressure, low back pain, knee pain, use of psychotropic medications, depression, and bariatric surgeries. While hundreds of billions of dollars are being spent on what is breaking us, and medications to fix us, only a very small percentage is being on prevention of these problems. An ounce of prevention is worth a pound of cure. I know as a new parent, my son's health is one of the most important things in life. I would much rather invest in his present and future health, than say (figure something funny out and its cost).

Cost of a pair of gym shorts, shirt, and sneakers: ***\$60.00***

Cost of Lime Gatorade and Bottled Water: ***\$2.00***

Cost of expert exercise instruction for 1 hour: ***\$100.00***

Knowing my son is exercising instead of sitting on the couch playing video games, while eating McDonald's, ice cream, and potato chips under a babysitters supervision (\$300, \$6, \$2.49, \$1.09, and \$12.00

respectively):..... ***..PRICELESS!!!!!!***