

# DEVELOPMENT OF HEALTH, SPORTS AND PHYSICAL EDUCATION AND BENEFITS OF PHYSICAL EDUCATION EXERCISES FOR ADULTS IN HOME SCHOOLING METHOD: AN OVERVIEW

**Hanumantharayappa A**

College Director

Dept. of Physical Education and Sports

Government First Grade College, Santhebennuru, Davangere District, Karnataka State, India.

Email-id: [appudorelib@gmail.com](mailto:appudorelib@gmail.com)

---

**Abstract:** In today's society, physical education holds great significance. Engaging in physical exercise is crucial for individuals to lead a healthy and improved lifestyle. The emergence of new diseases has caused significant harm to the human body, resulting in a heavy reliance on medications. Digestive aids, excretion aids, sleep aids, and various other medications have turned individuals into mere automatons. Is it justifiable to neglect and misuse our bodies in such a manner? It is disheartening to witness individuals dedicating their time to the service of technological gadgets such as cars, freezers, and televisions, while neglecting the care of their own invaluable bodies. Through physical education, individuals can maintain a healthy lifestyle on a daily basis. Physical education plays a vital role in personal development, contributing to better physical, mental, social, emotional, and spiritual well-being. The author aims to emphasize the significance of physical education in our modern lives.

**Keywords:** Education, Physical education, Sports, Health, Exercises, Adults, Physical and mental, Social emotional, Spiritual

---

## 1.0 Introduction

Physical education plays a pivotal role in the holistic development of students. It fosters their competence and confidence, enabling them to actively participate in a diverse range of physical activities that are essential for their overall well-being, both within and beyond the school environment. The significance of physical education programs lies in their ability to equip students with a wide array of skills, while also empowering them to employ effective tactics, strategies, and innovative ideas to excel in various aspects of their lives, be it at home or in school. In India, it is widely acknowledged that Health and Physical Education should remain a mandatory subject throughout the primary and secondary stages, and be offered as an optional subject during the higher secondary stage. However, it is imperative that physical education is accorded equal importance as other academic subjects, a status that is currently lacking. To ensure the seamless implementation of the curriculum, it is crucial to provide every school with the necessary physical space and equipment, as well as regular visits from doctors and medical personnel.

A typical day at an Indian School commences with the students marching on the school grounds, followed by regular callisthenics. Each student is required to attend two physical training classes per week. In addition to learning various games, sports, and physical education, the students also develop physical stamina, which is crucial for a healthy life. We strongly believe in the motto, "A school which plays together, stays together." Physical education offers numerous benefits, and there are a few schools in India that have successfully achieved a balance between academics and physical fitness. These schools provide comprehensive physical education and sports from an early age, recognizing the importance of sports in bone and muscle development. Furthermore, engaging in sports helps maintain an active, healthy lifestyle and prevents obesity. Therefore, Indian scholars and researchers have placed significant emphasis on physical education. From a historical perspective, physical education gained prominence after 1820, with schools focusing on gymnastics, hygiene training, and overall human body development. By the year 1950, more than 400 institutes of physical education had been established.

During the Vedic Period in India, various sports such as archery, horse riding, hunting, military fights, and chariot-racing were commonly practiced. These physical activities were not merely for pleasure, but rather served as preparation for war. It was during this period that the practice of yoga, including breath control exercises like Pranayama, emerged. In the Epic Period, Indian culture and traditions were reflected in literary works such as the

Ramayana and Mahabharata, both of which depicted a time of great disturbance and wars. These epics also promoted strategic mind games like "dice" and "chess". Physical education was compulsory during this period, with archery, javelin throwing, animal fights, and wrestling being the main physical activities. The Nalanda Period was known for its emphasis on education, with students from different parts of the world coming to learn. Physical education reached its peak during this time, as students studied it to maintain physical and mental strength, as well as good health. Performing Pranayama and Suryanamaskar every morning was a duty for everyone throughout the year. In the Rajput Period, hunting, swimming, and animal fighting were the main sports. Animal fighting remained popular during the Muslim period. The growth and development of physical education in India during modern times can be traced back to the pre-Independence era. The establishment of the Y.M.C.A College of Physical Education in Madras in 1920 by Mr. H.C Buck played a significant role in promoting and systematizing physical education in India. Additionally, in 1914, the Vaidya brothers established the Sir Hanuman Vyayam Prasarak Mandal in Amaravati with the sole purpose of developing physical education in the country.

During the peak of Modern India, physical education experienced significant development. In 1948, the Tarachand committee was established by the Government of India. Subsequently, in 1954, the Ministry of Education, Government of India, founded the Central Advisory Board of Physical Education. In the same year, the All India Council of Sport was established with the explicit aim of recommending the advancement of physical education. General Bhonsle, the founder of the National Discipline Scheme, devised this scheme in 1954 while serving as the Deputy Minister of the Rehabilitation Centre. The Lakshmibai College of Physical Education, inaugurated in 1957, played a pivotal role in the progress of physical education in India. In 1958, the Sports and Youth Welfare Department was established, followed by the deputation of the Koul Kapoor committee to the Rome Olympics in 1960. The National Institute of Sports in Patiala was then established in 1961 at Moti Bagh. In 1965, the National Fitness Corps was introduced as a new initiative. Furthermore, in 1970, the Rural-Sports Tournament Scheme was launched, and in 1975, the Government of India initiated the National Sports Championship for Women.

The main development of physical education in Indian history has predominantly occurred in modern times. Physical education holds significant importance for various sections of society in the modern era. It contributes to the optimum development of a child's physical growth, intellectual development, emotional development, social development, personal development, character building, physical fitness, development as a disciplined citizen, neuromuscular development, cultural development, development of leadership qualities, fostering a healthy and safe environment, promoting national integration, and enhancing international understanding. In the 21st century, the COVID-19 pandemic has profoundly impacted individuals worldwide. The demarcation between personal and professional lives has diminished due to the prevalence of remote work. Consequently, people have been contemplating the crucial aspect of their health and fitness while staying at home. The sudden imposition of lockdown measures has adversely affected individuals' lifestyle as well as their mental and physical well-being.

Since the emergence of this illness, individuals have been confined to their residences, resulting in not only a range of psychological health concerns but also posing challenges to their physical fitness and overall well-being. However, in the present day, Physical Education classes are being conducted online. Prior to engaging in online teaching, educators must receive training in a web-based environment. Conducting practical classes online is no easy task. The practical exercises and activities, such as yoga, dance sports, swimming, and aerobic dance, are now taking place through web-based platforms, either in the form of videos or real-time lectures. The study of physical education and sports goes beyond discussing performance, technique, or records; it aims to shed light on the underlying assumptions held by the general population regarding physical education and sports. Sports, in general, have been viewed as a means of escape from the demands of everyday life. Engaging in regular exercise and participating in sports activities assist in maintaining a healthy body and mind, enabling individuals to cope with the challenges of modern lifestyles, including stress, strain, worry, anxiety, and tension. The significance and necessity of physical education can be understood through various perspectives that address the diverse requirements of different segments of society.

## **2.0 Relationship to Growth, Development and Health of Physical Activity and Physical Education**

- Regular physical activity is essential for growth and development, and it offers numerous advantages for physical, mental, and psychosocial well-being, all of which undoubtedly contribute to learning.
- In particular, engaging in physical activity helps to lower the risk of heart disease, diabetes mellitus, osteoporosis, high blood pressure, obesity, and metabolic syndrome. It also enhances various aspects of health and fitness, including aerobic capacity, muscle and bone strength, flexibility, insulin sensitivity, and lipid profiles. Additionally, physical activity plays a crucial role in reducing stress, anxiety, and depression.

- Moreover, physical activity has a positive impact on mental health by decreasing and preventing conditions such as anxiety and depression. It also improves mood and overall well-being.
- Furthermore, physical activity programs that are specifically designed for this purpose can enhance psychosocial outcomes, such as self-concept, social behaviors, goal orientation, and notably, self-efficacy. These attributes are important determinants of current and future participation in physical activity.
- It is important to note that sedentary behaviors, such as prolonged sitting and excessive television viewing, contribute to health risks, both in terms of their impact on physical activity and independently.
- It is crucial to provide early and ongoing opportunities for physical activity, as health-related behaviors and disease risk factors tend to track from childhood to adulthood. This highlights the need for maximum health benefits through regular physical activity throughout life.
- In order to be effective, physical activity programming should be tailored to match the predictable changes in children's exercise capacity and motor skills, which directly impact the activities they can effectively participate in.
- Engaging in frequent bouts of physical activity throughout the day not only brings short-term benefits for mental and cognitive health, but also provides opportunities to practice skills and build confidence, which in turn encourages continued involvement in physical activity.
- Different types of physical activity address specific health concerns and contribute to children's health in distinct ways. This suggests that a diverse exercise routine, including aerobic and resistance exercises, structured and unstructured activities, as well as longer sessions and shorter bouts, is likely to provide the greatest overall benefit.

### 3.0 Exercise for Adults

The COVID-19 pandemic has had a significant impact on the lives of everyone, including children. While adults may be able to adapt to the situation, it can be challenging for children to maintain a regular schedule during the lockdown. They are spending most of their time in front of screens and are also burdened with excessive homework and assignments. Parents and adults are also occupied with their work and household responsibilities. As a result, everyone is neglecting their physical health, which is crucial during this time. The busy schedule leaves no room for regular exercise or workouts. Additionally, physical education has not been included in online teaching for students. The lack of physical activity can lead to various health and mental issues. Engaging in regular workouts or physical exercises and making it a habit can help maintain a healthy lifestyle. It also aids in staying calm and relaxed amidst the stress. The World Health Organization (WHO) recommends 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity activity per week. These exercises can be done at home without the need for any equipment. Here are some tips for doing workouts and exercising to stay healthy.

#### 3.1 High knees:



High Knees is an exercise that focuses on cardiovascular fitness and targets various muscle groups such as the core, hips, and legs. By engaging the entire body, High Knees effectively strengthens the legs and aids in calorie burning. To perform this exercise, lift your knees up to hip level and alternate between legs. Raise one knee above hip level and then switch to lift the other knee, continuously switching legs. It is important to involve the arms in this exercise to maintain balance. As you lift one knee, simultaneously raise the opposite hand. The same technique should be applied when lowering the knees.

### 3.2 Plank:



The plank exercise is a highly effective method for developing core strength and stability. It is also known as a front hold or abdominal bridge. To perform the plank, lie on the floor with your elbows positioned directly beneath your shoulders and your hands resting flat on the ground. Gradually lift your body upwards until it forms a straight line from your head to your toes. Start by attempting a 10-second plank and gradually increase the duration as your strength improves.

### 3.3 Wall pushups:



Performing push-ups against a wall instead of the floor provides a simpler way to lower and raise your body. To execute this exercise, position yourself with your feet under your hips, maintaining an arm's length distance from the wall. Inhale deeply and gradually bend your elbows backward until your forehead or nose is directed towards the wall. Exhale as you push the wall away from you and return to the starting position. Repeat this sequence of movements.

### 3.4 Leg Raises:



Leg raising is a beneficial exercise that targets the legs and hips, effectively enhancing your core strength. To perform leg raising, assume a supine position and ensure that your legs are straight and aligned. Gradually elevate your legs, and then gently lower them until they are slightly above the floor. Maintain this position momentarily before raising your legs once more. Repeat these steps consistently. Engaging in leg raises not only enhances balance and stability but also aids in calorie burning, ultimately contributing to our overall health and well-being.

### 3.5 Stretches:



It is advisable for children to engage in basic stretching exercises. This practice helps to relax their muscles and maintain their activity levels throughout the day. They can perform side stretches, leg stretches, and arm stretches. By incorporating these stretches into their daily routine, particularly after waking up, children can develop a healthy habit. Additionally, a warm-up session after a long period of sleep can invigorate them.

**3.6 Skipping and Jumping Jacks:**



Jumping engages the entire body and serves as an excellent exercise for cardiovascular fitness. It encompasses the entire body. Children can experiment with activities like jumping jacks, skipping, or even skipping without a rope. Parents can provide guidance and recommend increasing the quantity of jumping jacks. Purchasing new skipping ropes for them motivates children to engage in regular physical activity.

**3.7 Running or Jogging:**

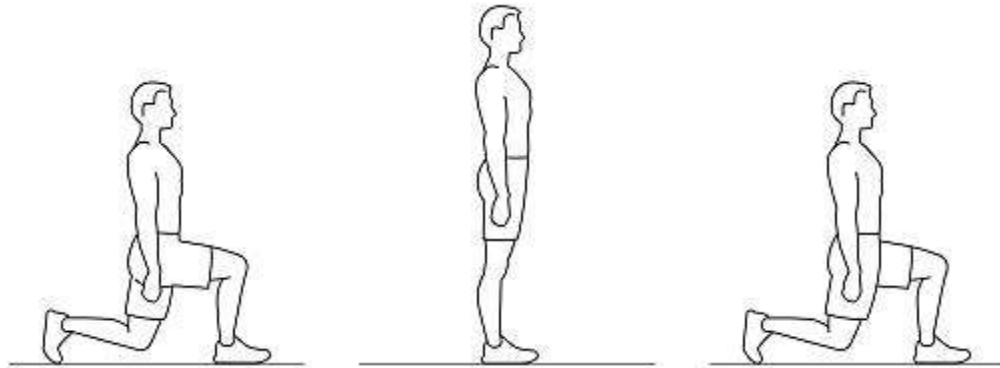




Running is a basic and uncomplicated physical activity that children can engage in within the confines of their own homes. By incorporating this exercise into their routine, they can effectively alleviate the stress accumulated from their academic pursuits. Whether it be outdoors or indoors, they have the option to run along a hallway or encircle a spacious table. Additionally, they can introduce variations to their movement patterns by incorporating skipping or performing high knees.

### 3.8 Squats and lunges:

Squats and lunges are effective exercises that can be incorporated into basic workout routines. These exercises specifically target and strengthen the muscles in the legs. To perform lunges, try stepping forward, backward, or to the side. Squats involve assuming a squatting position, as demonstrated in the accompanying image, and then moving up and down. By regularly practicing lunges, you can improve your balance and further develop the strength in your legs. When performing lunges, remember to step forward with one leg and lower your hips, ensuring that both knees are bent at approximately a 90-degree angle. Maintain the weight in your legs and gently push yourself back to the starting position.



### 4.0 Conclusion

Home schooling has become the new norm for students, bringing about a significant change in their lifestyle. While all other subjects are being taught, physical education seems to be missing from the curriculum. However, it is crucial for individuals to engage in regular exercise and workouts. With online learning and work from home jobs, there is an increased reliance on screens, resulting in a lack of physical activity. Both children and adults need to incorporate physical activities or exercise into their daily routines during this time. Despite the workload, it is important to allocate some time for small workouts, as it helps maintain enthusiasm throughout the day. Additionally, it is essential for children to have enough time for outdoor activities. Kids enjoy playtimes, and having a schedule for physical exercise in their daily routines is vital. Physical education not only keeps the mind and body active but also promotes overall health and well-being.

### 5.0 References

- i. Ahlqwist A, Hagman M, Kjellby-Wendt G, Beckung E. Physical therapy treatment of back complaints on children and adolescents. *Spine*. 2008;33(20).
- ii. Ahn S, Fedewa AL. A meta-analysis of the relationship between children's physical activity and mental health. *Journal of Pediatric Psychology*. 2011;36(4).
- iii. Ailhaud G, Hauner H. Development of white adipose tissue. In: Bray GA, James WPT, editors. *Handbook of Obesity*. New York: Marcel Dekker; 1998. .
- iv. Alberti K, Zimmet P. Definition, diagnosis and classification of diabetes mellitus and its complications. Part 1: Diagnosis and classification of diabetes mellitus. Provisional report of a WHO consultation. *Diabetic Medicine*. 1998;15(7).

- v. Behringer M, vom Heede A, Yue Z, Mester J. Effects of resistance training in children and adolescents: A meta-analysis. *Pediatrics*. 2010;126 (5).
- vi. Bell LM, Watts K, Siafarikas A, Thompson A, Ratnam N, Bulsara M, Finn J, O'Driscoll G, Green DJ, Jones TW. Exercise alone reduces insulin resistance in obese children independently of changes in body composition. *Journal of Clinical Endocrinology & Metabolism*. 2007;92(11).
- vii. Benson AC, Torode ME, Fiatarone Singh MA. A rationale and method for high-intensity progressive resistance training with children and adolescents. *Contemporary Clinical Trials*. 2007;28(4).
- viii. Benson A, Torode M, Fiatarone Singh M. Effects of resistance training on metabolic
- ix. fitness, body composition, and insulin sensitivity in overweight children in a school-based exercise program: A randomized, controlled study. *Archives of Pediatrics and Adolescent Medicine*. 2005;159(10).
- x. Caspersen CJ, Powell KE, Christenson GM. Physical activity, exercise, and physical fitness: Definitions and distinctions for health-related research. *Public Health Reports*. 1985;100(2).
- xi. CDC (Centers for Disease Control and Prevention). Overweight and obesity: Frequently asked questions. 2006. [November 27, 2012]. <http://www.cdc.gov/obesity/index.html>.
- xii. CDC. Youth risk behavior surveillance: United States, 2011. *Morbidity and Mortality Weekly Report*. 2012;61(4).
- xiii. Charvat J. Research on the relationship between mental health and academic achievement. Bethesda, MD: National Association of School Psychologists; 2012.
- xiv. Christodoulos AD, Douda HT, Tokmakidis SP. *International Journal of Pediatrics*. 2012. Cardiorespiratory fitness, metabolic risk, and inflammation in children. epub ahead of print.
- xv. Chumlea W, Siervogel R, Roche A, Mukherjee D, Webb P. Changes in adipocyte cellularity in children ten to 18 years of age. *International Journal of Obesity*. 1982;6(4):383–389.
- xvi. Church T, Barlow C, Earnest CP, Kampert J, Priest E, Blair S. Associations between
- xvii. Danforth JS, Allen KD, Fitterling JM, Danforth JA, Farrar D, Brown M, Drabman RS. Exercise as a treatment for hypertension in low-socioeconomic-status black children. *Journal of Consulting and Clinical Psychology*. 1990;58(2).
- xviii. Daniels SR, Morrison JA, Sprecher DL, Khoury P, Kimball TR. Association of body fat distribution and cardiovascular risk factors in children and adolescents. *Circulation*. 1999;99(4).
- xix. Daniels SR, Arnett DK, Eckel RH, Gidding SS, Hayman LL, Kumanyika S, Robinson TN, Scott BJ, Jeor SS, Williams CL. Overweight in children and adolescents: Pathophysiology, consequences, prevention, and treatment. *Circulation*. 2005;111(15):1999–2012.
- xx. Davies PS, Gregory J, White A. Physical activity and body fatness in preschool children. *International Journal of Obesity and Related Metabolic Disorders*. 1995;19(1):6.
- xxi. Davis CL, Pollock NK, Waller JL, Allison JD, Dennis BA, Bassali R, Meléndez A, Boyle CA, Gower BA. Exercise dose and diabetes risk in overweight and obese children: A randomized controlled trial. *Journal of the American Medical Association*. 2012;308(11):1103–1112.
- xxii. N. Reducing obesity via a school-based interdisciplinary intervention among youth: Planet health. *Archives of Pediatrics and Adolescent Medicine*. 1999;153(4)
- xxiii. Graf C, Koch B, Dordel S, Schindler-Marlow S, Icks A, Schüller A, Bjarnason-Wehrens B, Tokarski W, Predel HG. Physical activity, leisure habits and obesity in first-grade children. *European Journal of Cardiovascular Prevention and Rehabilitation*. 2004;11(4)
- xxiv. Hagberg JM, Goldring D, Ehsani AA, Heath GW, Hernandez A, Schechtman K, Holloszy JO. Effect of exercise training on the blood pressure and hemodynamic features of hypertensive adolescents. *American Journal of Cardiology*. 1983;52(7).
- xxv. Hagberg JM, Ehsani AA, Goldring D, Hernandez A, Sinacore DR, Holloszy JO. Effect of weight training on blood pressure and hemodynamics in hypertensive adolescents. *Journal of Pediatrics*. 1984;104(1).
- xxvi. Hager A. Adipose tissue cellularity in childhood in relation to the development of obesity. *British Medical Bulletin*. 1981;37(3):287–290.
- xxvii. Haugen T, Säfvenbom R, Ommundsen Y. Physical activity and global self-worth: The role of physical self-esteem indices and gender. *Mental Health and Physical Activity*. 2011;4(2):49–56.

- xxviii. Bauman AE, Reis RS, Sallis JF, Wells JC, Loos RJ, Martin BW. Lancet Physical Activity Series Working Group. Correlates of physical activity: Why are some people physically active and others not. *Lancet*. 2012;380(9838).
- xxix. He Q, Zhang X, He S, Gong L, Sun Y, Heshka S, Deckelbaum RJ, Gallagher D. Higher insulin, triglycerides, and blood pressure with greater trunk fat in Tanner 1 Chinese. *Obesity*. 2007;15(4):1004–1011.
- xxx. Heller T, Hsieh K, Rimmer JH. Attitudinal and psychosocial outcomes of a fitness and health education program on adults with Down syndrome. *American Journal on Mental Retardation*. 2004;109(2).
- xxxi. HHS (U.S. Department of Health and Human Services). Physical activity and health: A report of the Surgeon General. Atlanta, GA: HHS, CDC, National Center for Chronic Disease Prevention and Health Promotion; 1996.
- xxxii. Hussey J, Bell C, Bennett K, O'Dwyer J, Gormley J. Relationship between the intensity of physical activity, inactivity, cardiorespiratory fitness and body composition in 7-10-year-old Dublin children. *British Journal of Sports Medicine*. 2007;41(5):311–316.
- xxxiii. Imperatore G, Cheng YJ, Williams DE, Fulton J, Gregg EW. Physical activity, cardiovascular fitness, and insulin sensitivity among US adolescents: The National Health and Nutrition Examination Survey, 1999–2002. *Diabetes Care*. 2006;29(7):1567–1572. IOM (Institute of Medicine). Children's health, the nation's wealth. Washington, DC: The National Academies Press; 2004.
- xxxiv. IOM. Preventing childhood obesity: Health in the balance. Washington, DC: The National Academies Press; 2005.
- xxxv. IOM. Accelerating progress in obesity prevention: Solving the weight of the nation. Washington, DC: The National Academies Press; 2012a.
- xxxvi. IOM. Fitness measures and health outcomes in youth. Washington, DC: The National Academies Press; 2012b.
- xxxvii. Irwin ML, Yasui Y, Ulrich CM, Bowen D, Rudolph RE, Schwartz RS, Yukawa M, Aiello E, Potter JD, McTiernan A. Effect of exercise on total and intra-abdominal body fat in postmenopausal women. *Journal of the American Medical Association*. 2003;289(3).
- xxxviii. Isasi CR, Deckelbaum RJ, Tracy RP, Starc TJ, Berglund L, Shea S. Physical fitness and C-reactive protein level in children and young adults: The Columbia University Biomarkers Study. *Pediatrics*. 2003;111(2)
- xxxix. Jaakkola T, Kalaja S, Liukkonen J, Jutila A, Virtanen P, Watt A. Relations among physical activity patterns, lifestyle activities, and fundamental movement skills for Finnish students in grade 7. *Perceptual and Motor Skills*. 2009;108(1):97–111.
- xl. Janssen I, LeBlanc AG. Systematic review of the health benefits of physical activity and fitness in school-aged children and youth. *International Journal of Behavioral Nutrition and Physical Activity*. 2010;7(40).
- xli. Janssen I, Katzmarzyk P, Boyce W, Vereecken C, Mulvihill C, Roberts C, Currie C, Pickett W. Comparison of overweight and obesity prevalence in school-aged youth from 34 countries and their relationships with physical activity and dietary patterns. *Obesity Reviews*. 2005;6(2).
- xlii. Jarrett OS, Maxwell DM, Dickerson C, Hoge P, Davies G, Yetley A. Impact of recess on classroom behavior: Group effects and individual differences. *Journal of Educational Research*. 1998;92(2).
- xliii. Jolliffe CJ, Janssen I. Development of age-specific adolescent metabolic syndrome criteria that are linked to the Adult Treatment Panel III and International Diabetes Federation criteria. *Journal of the American College of Cardiology*. 2007;49(8):891–898.
- xliv. Jones M, Stratton G, Reilly T, Unnithan V. The efficacy of exercise as an intervention to treat recurrent nonspecific low back pain in adolescents. *Pediatric Exercise Science*. 2007;19(3).
- xlv. You T, Murphy K, Lyles M, Demons J, Lenchik L, Nicklas B. Addition of aerobic exercise to dietary weight loss preferentially reduces abdominal adipocyte size. *International Journal of Obesity*. 2006;30(80).
- xlvi. Zeng Q, Dong SY, Sun XN, Xie J, Cui Y. Percent body fat is a better predictor of cardiovascular risk factors than body mass index. *Brazilian Journal of Medical and Biological Research*. 2012;45(7).