

# The Training Principle: Supplement Your Bowling With Improved Fitness

I advise several bowlers of The Florida State University's bowling team on areas ranging from injury care and rehabilitation to general conditioning or sport specific training. Many bowlers take advantage of my services and I find it extremely rewarding from both an intrinsic and performance standpoint. Yet, other bowlers I meet prefer the sedentary lifestyle to supplement their bowling careers.

It bewilders me to understand the desires of today's bowling prospects. They vary from bar hopping, illicit drug use, or alcoholism to overeating and extremely low activity levels. By no means do I insinuate all bowling prospects partake in each of these, but just spend a weekend at a collegiate bowling tournament and see what I mean. Ironically, research is proving daily exercise and diet are key ingredients for developing and promoting a long and successful athletic career.

## Fitness Fitness Fitness Fitness Fitness Fitness Fitness

Understanding fitness will better enable you to achieve your goal of improved sport performance. "Fitness" is your body's ability to deliver and utilize oxygen to working muscles in an efficient manner. Let me explain. The heart, lungs, and blood stream all work together to take oxygen from the lungs, carry it to the muscles, and convert it to energy. The body uses energy to power muscles during activity whether it is running, lifting, walking, or bowling. Therefore, the greater fitness level maintained promotes a more efficient and effective use of the oxygen we breathe.

According the **American College of Sports Medicine**, fitness is significant throughout life to develop and preserve functional capacity satisfying the demands of daily living. Functional capacity is your ability to execute physical functions such as walking, jogging, carrying, reaching, lifting, holding, pushing, stepping, grabbing, twisting, etc. . . . Therefore, exercise should be your benefit package providing a healthy, productive, and enjoyable life.

## What Does the Research Tell Us?

Studies performed over the years on various forms of exercise unanimously support the active lifestyle idea. In a recent exercise article the renown Nicholas A. DiNubile M.D. was quoted as saying, "I can hardly think of an individual, including those with a wide variety of medical conditions, who would not benefit from a well-designed, individualized exercise program."

**Research studies** are performed testing various hypotheses on the direct and indirect relationships of exercise on the body and sport performance. **Researchers** often use hundreds even thousands of **subjects** as **samples** of the studied **population**. Usually with exercise, the sample group takes a pretest, undergoes a treatment, then takes a posttest. The **pretest** and **posttest** are measurable activities such as a single leg press, aerobic bike test, or a 100-yard sprint. The **treatment** is the specific exercise or activity administered to the subjects by the researchers. Ultimately, researchers hope to find a difference in the posttest from the pretest. They then statistically evaluate the results and conclude whether the treatment caused the difference. In brief, research determines the specific results of different exercises.

## Sample Research

- **Harvard** once did a study with nearly 17,000 people concluding those who exercised had greater chances of outliving their peers.
- In 1989, the **Cooper Aerobic** Institute studied 13,000 healthy individuals over eight years. They determined brisk walking for 20-30 minutes three times a week lowered their mortality rate.
- A recent article in the **Journal of American Medical Association** confirmed "Lower intensity activities are likely to be more comfortable, convenient, affordable, safer, and more likely to be done."
- The **American College of Sports Medicine** reports children are less active and increasingly becoming overweight. They recommend 20-30 minutes of daily exercise.

We report these items because it is important people understand where the recommendations of various exercise and diet originate. When **BTM** offers exercise, dietary, and injury information understand it comes from proven theories and principles. Each month we spend countless hours researching a specific topic before putting the pen to the paper. I have studied bowling and exercise science for many years and have found sound connections between physical fitness and bowling performance. Though most people in our society laugh at the notion of fitness as a necessity for improved performance, I value the integrity and physical demands of our sport. As athletes, we need to think, eat, sleep, train, and practice like athletes.

## So Why Should Bowler's Exercise?

Rather than specifying a precise exercise routine, let us explore the reasoning behind supplementing your bowling with exercise. There must be a purpose behind every action. A driving force that motivates every impulse. A simple reason we do what we do. With exercise these are known as the **benefits**. I like to classify these as **direct effects** or **outcomes**. The outcome of a fitness program is the resultant adaptations or changes in the physiological function of the body. By maintaining a consistent sport specific training routine you are in essence communicating with your body the specific changes wanted to promote improved bowling performance and health.

Training the body through the use of exercise sends specific messages to various organs, hormones, tissues, systems, and brain cells causing the occurrence of multiple adaptations. The adaptation or those communicated modifications are listed below and contain many scientifically proven outcomes resulting from consistently safe exercise. This list is not complete since many benefits are still being studied and proven today.

### Exercise Outcomes

- Decreases the resting heart rate reducing
- Decreases total blood pressure lowering
- Strengthens the heart muscle improving
- Improves HDL cholesterol level reducing disease.
- Reduces blood sugar levels lowering
- Improves balance and overall reaction
- Strengthens joint stability lowering
- Reduces fatigue promoting extended
- Aids in the prevention of obesity.
- Improves joint stability lowering the
- Enables the body to burn excess calories.
- Retards bone loss reducing the risk
- Increases health awareness.
- Increases pain tolerance and mood.
- Promotes muscular strength improving living.
- Improves bone strength reducing the
- Increases work productivity.
- Helps alleviate depression.
- May prolong life.
- Improves the overall quality of life.

Most of these outcomes are health factors and should be adhered to by every individual. As competitive athletes it is pertinent to maintain the quality of our health to accommodate the added demands of our sport. Health and wellness is becoming more and more an issue in our society and we must continue to improve our lifestyle preventing health problems while promoting our bowling careers. Though these sound like general outcomes or benefits, **without your health where would you be today?** Take an active role and control your physical well being by implementing exercise as a part of your daily lifestyle. Reap these and the many other outcomes of safe exercise improving your fitness and promoting your bowling. Next month look for material geared toward training on the road and mapping out healthy traveling plans. Good luck, good bowling, and great exercising.