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Youth Fitness

Thomas D. Fahey, EdD

Third Edition

Course Textbook for **YOUTH FITNESS TRAINER**

ISSA Youth Fitness

Thomas D. Fahey, EdD

Youth Fitness (Edition 3)

Official course text for: International Sports Sciences Association's Youth Fitness Trainer Program

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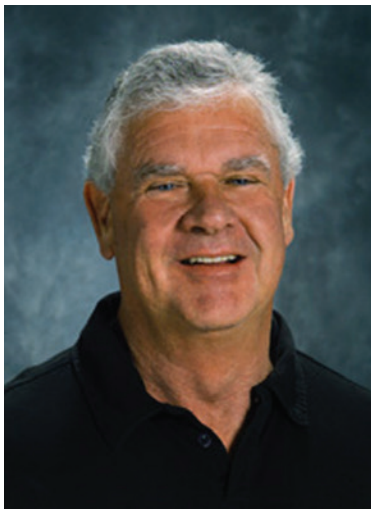
About the Author



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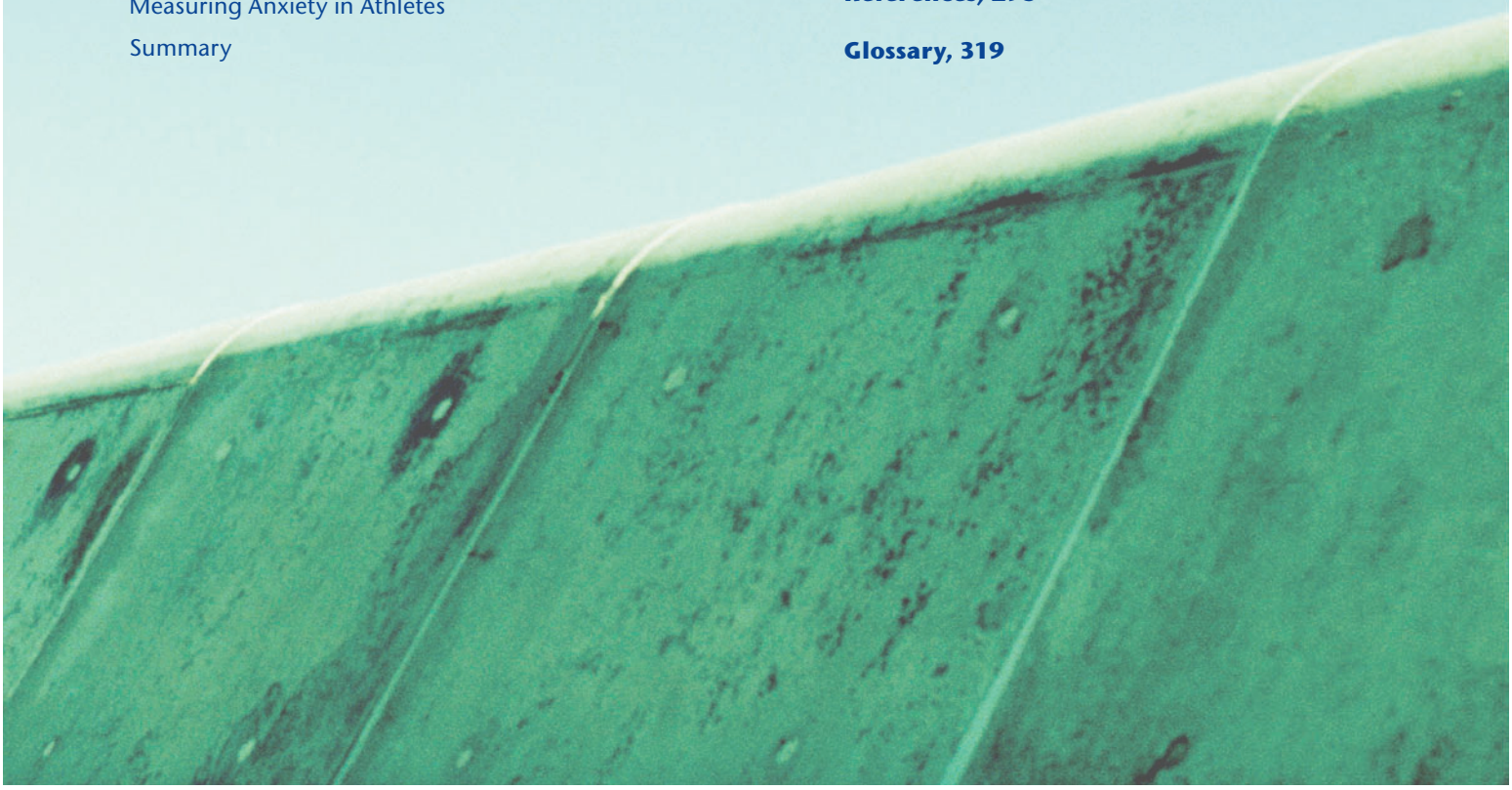

INTRODUCTION

PERSONAL TRAINING FOR YOUTH FITNESS AND SPORTS

TOPICS COVERED IN THIS UNIT

Key Terms

obesity
Osgood-Schlatter's disease
motor development
overload
specificity
individual differences
reversibility
periodization
rest
overtraining
stimulus variability
power
agility
speed
balance
skill
mean
standard deviation
percentile rank
correlation
regression
motor learning
transfer
self-image
transference
body composition
weight training
plyometrics
interval training
skinfold thickness
underwater weighing
Bodpod
bioelectrical impedance
repetition maximum (RM)
muscle endurance
flexibility
range of motion (ROM)

INTRODUCTION

Children and adolescents are natural markets for personal trainers. Many young people participate in competitive athletics. They want to achieve health, fitness, and athletic success, and their parents support these goals. Children can benefit from the services of a personal trainer who has specific knowledge about youth fitness and performance, as well as more general knowledge of anatomy, physiology, exercise physiology, performance measurement, training, sports psychology, and sports nutrition.

Personal trainers possess an impressive array of training, nutritional, and psychological tools to help young athletes excel. Unfortunately, coaches in high school and sports clubs are often poorly trained because of the sorry state of coaching education in the majority of American colleges and universities. This presents opportunities for personal trainers to fill the gap and help motivate young athletes to "be the best that they can be" on and off the playing field.

obesity: Excess bodyfat, typically defined as a bodyfat content that exceeds 20 percent in males and 30 percent in females.

America is faced with an **obesity** epidemic that includes our youth. The Centers for Disease Control and Prevention (www.cdc.gov) report that 18 percent of school-aged children are obese and that the obesity rate exceeds 20 percent in nine states. Physical education programs in the schools continue to remain underfunded and often are administered by teachers with little training or practical experience in sports, physical training, and exercise physiology. Unfortunately, many children and adolescents are physically inactive; they will benefit from the services of a qualified personal trainer.

Special youth populations also are potential clients. Children with diabetes, asthma, spinal cord injury, amputation, mental retardation, or cerebral palsy will benefit from the services of a knowledgeable trainer. Families of these children may have discretionary income that could pay for your services. You could help these young people improve their physical capacities for sport or for health and well-being.

PREREQUISITE KNOWLEDGE

Children are not miniature adults. You cannot use the same training methods or motivational techniques on growing children as you do with mature adults. Children and adults are different anatomically, physiologically, and emotionally.

Anatomy and Physiology

Personal trainers must have a thorough understanding of anatomy and physiology. You should know the major muscles of the body and how they work and understand metabolism—how the body converts food energy into other forms of energy the body uses at rest and during exercise. Know the function and regulation of the lungs, heart, blood vessels, hormones, brain, and nerves, including the weight control and temperature regulation systems at rest and during exercise.

Children have immature skeletons. Their bones will not mature until 14 to 22 years of age, depending on gender and maturational levels. In girls, exercising during childhood will critically impact bone health that can last a lifetime. Children and adolescents sustain different types of athletic injuries from adults, and as such, remain particularly vulnerable to growth-related overuse injuries (e.g., **Osgood-Schlatter's disease**; www.osgood-schlatter.com). Trainers must take great care when using high intensity training methods common in older athletes.

Children have immature temperature regulation systems. They have a large surface area in comparison to their muscle mass, which makes them more susceptible to cold injury. Also, children do not sweat as much as adults do, so they are more prone to heat exhaustion and heat stroke. Their relatively low muscle mass and immature hormone systems make it more difficult for them to optimally develop speed and power. Breathing and heart responses during exercise remain much different than in adults, which also affects their capacity for moderate to high levels of intense exercise.

Motor Development

Growth and development also influence the capacity to learn motor skills. For example, rapid growth during puberty makes it difficult to achieve stability in basic sports skills. Early maturers will outperform late bloomers—at least initially. In contrast, the late maturing athlete often outperforms the early maturer in high school, college, or beyond.

Sports skill development in children depends on maturation of the brain and nervous system, muscles, temperature regulation, and endocrine systems. The personal trainer should know developmentally appropriate training techniques that develop fitness for sports without precipitating injuries.

Principles of Training

Changes in training status improve the fitness and capacity of the physiological systems. Knowledge of muscle, cardiopulmonary, and metabolic physiology and how they adapt to training is critical for any personal trainer or fitness specialist. Trainers must understand basic principles of fitness training such as, **overload**, **specificity**, whole-body functional training, **individual differences**, **reversibility**, **periodization**, **rest**, **overtraining**, and **stimulus variability**. Trainers also should know how to achieve training effects quickly, efficiently, and without injury.

Osgood-Schlatter's disease: Inflammation of the region where the patellar tendon inserts into the tibia. This condition is relatively common in adolescents.

motor development: How children develop and learn motor tasks.

overload: Progressively increasing exercise stress during training.

specificity: Body adapts to the nature of the stressor.

individual differences: People respond differently to the same stressors; largely due to genetic factors.

reversibility: Loss of fitness gains with removal of the stress of exercise.

periodization: Cycling the volume and intensity of training to maximize the rate of adaptation.

rest: Amount of time spent not exercising between sets or workouts. Rest is essential for adaptation and should be incorporated into every training program.

overtraining: Imbalance between training and recovery.

stimulus variability: Changing the nature of the exercise stress. This may include varying the intensity and volume of exercise or performing different modes of exercise.

Development of Health and Performance Fitness Components

It is difficult to separate health–and performance–related physical fitness. Certainly they overlap. For simplicity, health–related fitness components include endurance, strength, muscular endurance, flexibility, and body composition. Performance-related fitness includes all of the above in addition to **power**, **agility**, **speed**, **balance**, and **skill**. The skilled personal trainer should understand the physiology of each fitness component and know training techniques for developing them in children and adults.

power: Work per unit of time. From a practical standpoint, defined as ability to exert force rapidly.

agility: Ability to change directions rapidly.

speed: Ability to move quickly.

balance: Ability to remain steady and under control from a moving or stationary base.

skill: Ability to perform a discrete motor task.

mean: Measure of central tendency or average.

standard deviation: Measure of variability used to describe a set of data.

percentile rank: Percent of scores falling above and below a specific point.

correlation: Measure of the degree of relationship or association between two variables such as height versus weight or maximum arm strength versus maximum leg strength.

regression: Process for determining the extent of relationship or prediction between an established variable (for example, maximum strength) and one or more independent variables (for example, height, weight, arm length, forearm and biceps girth).

motor learning: Study of how people learn physical skills.

transfer: Ability to incorporate strength or fitness developed in training to improved performance in sports skills.

Sports Nutrition

Nutrition supplies the energy necessary for growth and fuels metabolism during exercise. Twenty years ago, the best advice a coach could give a young athlete was to eat a well-balanced diet containing a variety of foods. This is still good advice. In addition, sports scientists have developed many nutritional techniques to improve performance. Sports drinks, dietary composition, nutrient timing, and some dietary supplements can boost performance under a variety of circumstances. Personal trainers should be able to design diets for young athletes that address the nutritional needs of growth and also provide the nutrients to improve performance.

Measurement

Personal trainers should use scientific methods if they want to be effective. This involves using valid measurement tools to measure weaknesses in fitness and improvements in the training program. You should know basic tests to assess fitness in terms of both its health and its performance components, and you should be able to relate these things to performance in the athlete's sport. You should also become familiar with the following basic statistical terms: **mean**, **standard deviation**, **percentile rank**, **correlation**, and **regression**.

Motor Learning

Motor learning involves the study of how people learn physical skills. Personal trainers attempt to make improvements in fitness that can be transferred to faster and more powerful sports performances. Strength and power **transfer** is *not* automatic. Simply increasing the amount of weight an athlete bench presses or squats does not automatically improve power in football, track, or basketball. The newly acquired strength must be integrated into the sports movements. Personal trainers should understand how athletes best learn sports skills and how specific training exercises affect learning them.

Psychology of the Child Athlete

Success in a sport or an exercise program requires dedication and motivation. Personal trainers can help young athletes succeed by believing in them, helping them focus on goals, and providing them with concrete methods to improve performance. Growing up is difficult for all young people. The trainer can help the young athlete maintain a balanced life.

Highly motivated parents are both a boon and bane of the trainer. You need parents to provide opportunities for young athletes such as motivating children, getting them to practice, and hiring the services of a personal trainer. Nevertheless, the parent-trainer relationship can be difficult and counterproductive. Parents often try to live through their kids, which can create unacceptable or difficult circumstances for young athletes.

The personal trainer must know enough about sports psychology to help kids and their parents cope with the stresses of sport. You can help them keep sports in its proper perspective and ensure that training for athletics remains a healthy, positive experience.

Prevention and Treatment of Athletic Injuries

A fine line often separates the improved fitness gained from training and the breakdown and injury that can be caused by overtraining. The personal trainer must know how much training causes positive adaptation and how much is excessive. Injuries do occur in sports. Part of your job as personal trainer is to work around the injury to maintain fitness or at least prevent deterioration. You should also know basic rehabilitation exercises for major injuries and the role of conditioning in injury prevention.

Personal trainers must also know emergency medical procedures to be prepared for the unlikely event of a child suffering from a serious medical condition or sustaining a serious injury. You must keep meticulous records of your injury management procedures for each client to protect yourself from a lawsuit.

RECRUITING CLIENTS

Most personal trainers work with adults who have money, discipline, and usually the motivation to exercise. Adults want to look sexually attractive, thin, fit, and healthy. Unfortunately, the competition for adult clients is often fierce. Why fight the crowd when you can have a specialty market to yourself? Children and adolescents represent an untapped market for personal trainers in most communities. Almost every child participates in competitive sports. Many kids and their parents take sports seriously and want an advantage over the competition. The personal trainer can help school-age children improve health and fitness and can make high school athletes more competitive and help them develop training skills that will foster success in college.

Most personal trainers get clients through health clubs, by word of mouth, or through their private office or home practice. Finding clients who are young athletes is not much different, except that most young athletes do not belong to health clubs. They do, however, participate on club and school teams. Your best bet is to obtain the endorsement or at least passive cooperation of the coach. People can also become aware of your services through blogs, Internet sites, newspaper advertising, bulletin boards, and brochures.

The Brochure

A good brochure is vital to any personal trainer. Handing out a well-produced brochure enhances your image as a professional and will help attract customers willing to spend money for a quality trainer. Your brochure should include your photograph, target population, list of services, educational background, certifications, and experience (athletic and personal training). Be upbeat and emphasize your strong points. If you have only a high school diploma but are a champion bodybuilder or fitness competitor, emphasize your athletic experience and certifications (if any). Push your credentials to the max if you have a master's degree in exercise physiology or a related field.

Create your brochure or website with a professional flair. Explain your services simply and concisely. Have a rate sheet available, but do not publish it in the brochure. Distribute the brochure in places frequented by young athletes or their parents—sporting goods stores, health clubs, gyms, school bulletin boards, and on the Internet.

Relationship with Parents

Parents are the best link to new clients. Obviously, parents pay the bills, so you won't get far without them. Also, parents often have higher ambitions for their children than the children have for themselves. The bottom line here is that it is a good idea to get the parents on your side.

Remember, you are the professional, so you have to draw the line at letting parents tell you how to do your job. This requires tact and finesse. Overzealous or overprotective parents can negatively affect a child's progress, **self-image**, or motivation for training. The personal trainer must walk a fine line between soliciting parental support and maintaining independence.

self-image: How children perceive themselves.

Relationship with Schools

Schools are an excellent source of clients. Many school athletic programs use part-time coaches and lack continuity from one year to the next or even one season to the next. The personal trainer can help young athletes develop fitness systematically over a long period of time.

Personal trainers can also be seen as a threat to the school program, however. Jealousy from the coach, other athletes, or parents can cause problems. The trainer must walk a fine line between doing what is best for the child and getting along with the school administration. You must not ignore the wishes of the coach or school. At the same time, you probably know training techniques that they are not aware of. If you are not able to maintain good cooperation with the school, at least try to coordinate your training program with the school timetable to avoid overtraining the child or interfering with their sports skill development.

Be aware that schools often restrict their facilities, particularly during school hours. Make sure you are familiar with local regulations when using facilities for training. Never decide to just use a facility because it is there! Volunteering as a part-time coach will often allow you access to school facilities and give you some degree of legal protection.

Club Sports

Club sports are common in most parts of the world—particularly in Europe and South America. Poor sports programs in many American schools have prompted the development of well-funded club sports programs particularly in soccer, gymnastics, figure skating, volleyball, tennis, baseball, swimming, water polo, and long distance running. Sports clubs are a great source of clients. Some trainers work with individual athletes while others may develop formal relationships with clubs—even to the extent of becoming the club's strength and conditioning coach. As with schools, be aware of "turf" concerns the club coach might have.

Health Clubs

Gyms have built-in clientele—children would not be there if they or their parents were not interested in fitness and sports. Some gyms allow outside trainers to use their facilities, while others will not. Try to establish a formal relationship with several clubs in town. Even if you have to share revenue, maintaining a good relationship with the best clubs in town will pay dividends to you in the end.

Working with Unique Populations

Young people with special needs—physical or mental disabilities, asthma, diabetes, or overweight and obesity—remain a potentially lucrative income source. Many trainers specialize and center their business on special populations. If you choose this route, learn as much about the disability as possible from up-to-date textbooks and reliable sources of information on the Internet. You need special knowledge about how exercise and growth and development affect the disability.

WORKING WITH CLIENTS

You will make the most progress with clients and have the best chance of establishing a thriving business if you have a plan. This plan includes information about legal and ethical considerations, a preliminary questionnaire and history, a list of goals and objectives, a pre-training fitness measurement, the training plan itself, and a re-evaluation.

Legal and Ethical Considerations

Personal trainers are not licensed, so few standards of practice exist. In the event of legal problems, however, a judge will expect you to behave at a level consistent with other professionals. Working with children poses legal risks not present when working with adults. Physically or sexually abusing children, or even the hint of such behavior, can have serious legal consequences.

You must protect yourself—being unjustly accused of impropriety is little better than actually doing something wrong. The benefit of the doubt will go to the child. You can minimize problems by always maintaining a professional demeanor, not becoming overly friendly with clients—particularly of the opposite sex—and documenting training sessions, evaluations, and training programs. Keep a log and be sure to record the date and time of workout sessions.

Psychologists describe the phenomenon of **transference** between coaches and athletes as physical attraction developed by working closely with each other. Fit young people can

transference: Physical attraction developed between a coach or trainer and athlete from working closely with each other.

look like adults and appear sexually desirable. The trainer should remember that the child is immature and easily swayed by attention from the personal trainer. Be a professional, and do not become involved with your clients—***ever***. Even a false accusation can ruin your life and end your career.

Drug use by young athletes represents another ethical issue. You do not want to be accused of advising young athletes to use illegal drugs such as anabolic steroids or growth hormone. Nearly five percent of high school athletes use steroids, so it is inevitable that you will work with young people who use these drugs. Discourage drug use in your clients. Encourage athletes to develop strength, speed, and power naturally without the aid of illegal drugs. It is acceptable to educate athletes about the risks and benefits of these drugs, but the trainer should never be perceived as advocating their use.

Insurance

Professional liability insurance is available for certified trainers. These policies are usually reasonable and well worth the money. Even defending a groundless lawsuit can be financially draining. It would be well worth it to consult with a lawyer about what type of insurance and coverage to purchase.

The Written Questionnaire

The history and goals questionnaire is essential to assessing your client, prescribing the exercise program, and determining the nature and intensity of training. Begin with a thorough medical history, including past illnesses, surgeries, and medications. The questionnaire should include background about the parents, including health and athletic history. Obtain a detailed account of athletic and fitness experiences, including participation in health clubs, school sports, club sports (e.g., Little League baseball), and sports camps. Record a physical description of the client that includes height, weight, and age. Ask for a list of short-term and long-term goals. These forms will be available to you once you have earned your certified at www.ISSAtrainer.com.

Goals and Objectives

body composition: Physical make-up of the human body that includes two main components—fat weight and fat-free weight.

weight training: Resistance training using weights (barbells, dumbbells, weight plates).

plyometrics: Resistance training technique that uses muscle stretch followed immediately by muscle contraction; an example is box jumping.

interval training: High intensity training technique that varies load, repetition, distance, and rest using a variety of exercises such as swimming, running, and cycling.

In younger children, the parents may be a source of goals. Young children seldom think about making the Olympics or professional sports teams on their own. However, they will have little chance of achieving great success without parental support—particularly in gymnastics, tennis, golf, figure skating, or alpine skiing. It will be your job to temper the enthusiasm of parents with the realities of big-time sports—it takes talent, tenacity, method, technique, and luck to succeed. Some children will make it to the top, while most will not. Either way, you must try to make the training experience fun and positive.

Fitness goals depend on the sport. Sports skills are highly specific. This means that practicing activities other than the sports skill will not achieve optimal results. One can develop fitness—strength, power, speed, endurance, and **body composition**—that will improve sports performance. However, training for fitness will never be as good as learning motor skills. Analyze the requirements of each sport, then design fitness activities that improve performance. For example, running six miles daily will do little to improve a football lineman's performance, while **weight training**, **plyometrics**, and **interval training** will greatly impact performance.

The exercise prescription or plan is closely related to the formation of goals. Write out programs in advance. Each workout should have a purpose and should progress naturally

into the next session. Build rest periods into the program because planned rest is just as important as training. The well-structured training program shows an appreciation for the importance of goal setting and how to achieve those goals.

Pre-Training Measurements

Test basic physical fitness of all clients, regardless of sport. Use a detailed, standardized form for your clients and try to use the same tests over the years. Tests should include measurements of body composition, endurance, strength, power, muscular endurance, flexibility, speed, and agility.

Begin with basic body measurements such as height, weight, age, body circumferences (chest, waist, arms, calves), and **skinfold thickness**. Include other valid indices of body composition measurement such as **underwater weighing**, **Bodpod**, or **bioelectrical impedance** if you have access to them.

skinfold thickness: Layer of adipose (fat) tissue just below the skin surface usually measured with a caliper at a specific anatomic location to describe fatness in that region.

underwater weighing: Body composition measurement technique that assesses the density of the body by water displacement.

Bodpod: Body composition measurement technique that measures body volume by air displacement with conversion to percentage bodyfat from body density (body density from Bodpod = mass/volume)

bioelectrical impedance: Body composition measurement technique that measures how fast a small electric current passes through the body's fat and non-fat tissues.

Cardiovascular Fitness Tests

Test cardiovascular fitness using field tests such as the step test, 1-mile run, the 12-minute swim test, or the 6-mile bike test—depending on the athlete's sport. Use the running test for most athletes. You can also do more sophisticated laboratory tests that measure maximal oxygen consumption if you have access to the equipment such as the submaximal bicycle test.

Strength

Measure strength using basic weight lifts such as the bench press, squat, leg press, overhead press, dead lift, or power clean. With young athletes, it is best to use five to ten **RM** (**repetition maximum**) tests and avoid maximum singles. You also can do more sophisticated strength tests if you have access to isokinetic equipment. Good technique is essential to building strength and preventing injury. This course includes a test to assess readiness for learning squats and lifts from the floor (i.e., deadlifts, cleans, jerks, and snatches).

repetition maximum (RM): Most weight lifted while performing a prescribed number of repetitions. For example, 1-RM is the maximum weight lifted once.

Muscle Endurance

Muscle endurance refers to the ability to exert force for an extended time period. Common measures of strength (push-ups, pull-ups, and sit-ups) really are measures of muscular endurance. Muscle endurance is important for performing extended workouts and preventing back pain.

muscle endurance: Ability to exert force for an extended period of time.

Flexibility

Flexibility is the ability to move a joint through its full **range of motion** or **ROM**. Good flexibility may help to prevent injury and allow athletes to move without hindrance. Using flexibility assessment tests, such as the sit-and-reach or the V-sit reach, measure the flexibility of the major joints of the body and compare them with established norms.

flexibility: The ability to move a joint through its full range of motion (ROM).

range of motion (ROM): The distance and direction a joint can move between the flexed position and the fully extended position.

Power

Power is a critical element for success in athletics—even endurance sports. Measure power with tests such as the vertical jump test or the power quadrathon test (standing long jump, bunny hops, 30-meter sprint, and overhead shot throw). Other tests that also measure upper body power include chest throws and forward throws.

Speed

Speed is the ability to move rapidly, and it overlaps with power. Tests of speed include the 20-meter start from blocks, the 40-yard (or meter) dash, and the 100-, 200-, and 400-meter dashes. Speed tests can be sports specific, and may include base path sprints for baseball or softball players, pool sprints for swimmers, uphill sprints for cross-country runners, and sled-pulling tests for football players.

Agility

Agility is sports specific—there is no general measure of agility that transfers from one sport to another. However, you can measure an athlete's ability to change direction rapidly using the shuttle run, cone, ladder, and dot assessment tests.

Identifying Problem Areas from Pre-training Tests

Unfortunately, there are few norms available for measuring athletic performance in children—except those developed in school physical education programs. Develop your own norms and use the few norms available from physical education professional organizations. Top sports performances are highly related to basic measures of fitness. Identify problem areas and incorporate remedial exercises in the training program. A good way to achieve this is to assess the fitness levels of top athletes. For example, if the best football players on the team run the 40-yard dash in five seconds, bench press 250 pounds, and vertical jump 28 inches, then your client should try to beat those marks.

Developing the Training Plan

After you have established baseline measurements and goals, it's time to construct the program. Try to outline a plan for four to six weeks. The plan should be structured and challenging but flexible enough to change if the goals are too difficult or too easy.

Do not try to prepare your client for the Olympics overnight. Start off conservatively and build fitness gradually. This will make the program more enjoyable and less painful. Gradually increase the volume and intensity of workouts. Work on all aspects of fitness. It is better to do only one set of an exercise that builds speed or agility than to end up not training at all because the athlete is too tired. Be creative and change the training program from one day to the next. However, do not make the program too complicated. Make sure the athletes understand why they are doing specific exercises in the program.

Video

Video provides a great way to monitor progress and help young athletes better understand how to perform basic plyometric or weight training exercises. Digital cameras make it possible to make computer movies of basic sports movements. Compare the athletes' movements with those seen in Olympic or pro athletes. Identify movement problems and set out to change them systematically.

Training Diary

All serious athletes and exercise enthusiasts should keep a training diary. This allows you to record progress during your daily workouts and keep track of how you feel and your responses to various types of exercise. The human body adapts to the stress of exercise. If the stress is insufficient, then the athlete will not improve fitness. It is basically that simple. But if the stress becomes excessive, the athletes will become injured or overtrained.

Record Keeping

Keep a record of each athlete's program and any training recommendations you give. This will help you evaluate progress and protect you in the event of a lawsuit or similar problem. Also, good records will help you evolve as a professional. If you have maintained a good computer database of your clients, you will be better at evaluating and comparing athletes.

Training Groups or Individuals

Many drills and exercises work better in small groups. Also, groups encourage competition and effort. However, while competition can be a benefit, it is also the weakness of the group training method. Immature, physically unfit, or overweight and obese kids may benefit from individual instruction. You can motivate them without any influence from their peers. Always prepare well-structured and planned exercise sessions. Behave like a professional and you will attract more clients than you can help.

Re-evaluation

Re-evaluation is a critical part of the training process. If you train and do not do any follow-up, you will not know if the program is working. Compare the pre- and post-tests and determine if you reached the short-term goals set at the beginning of the program. If the athlete did not progress, change the program so that you see more improvement. Be systematic, and you can improve the strength, power, speed, and endurance of anyone.

SUMMARY

Children have immature skeletons and temperature regulation systems, and their capacity to learn motor skills may be affected by the rapid growth associated with puberty. Trainers must have a solid understanding of anatomy, physiology, and the process of emotional maturation in order to effectively help young clients realize their athletic potential while avoiding sports-related injury and illness.

Youth fitness trainers must also have a firm grounding in the basic principles of fitness training. They should know the various health and performance related fitness components and know training techniques for developing each of these components. They should also have a clear understanding of sports nutrition. The trainer should be able to design a diet that fuels a child's healthy physical development while also contributing to athletic performance. These things, along with a basic grasp of sports psychology and an ability to prevent and treat athletic injuries, are all essential for anyone involved in the training of young athletes.

Children and adolescents represent a fertile market for trainers. The competition for these clients tends to be less intense than for adult clients, and the rewards of training with young people can be great. Children with special needs represent a lucrative market for trainers, as well. Trainers should contact parents and schools and advertise their services online and in the community in order to build a client base. It is important to have a brochure to distribute that details trainer qualifications and lists available services.

It is imperative that personal trainers who work with children conduct themselves professionally. They should be aware of the legal and ethical considerations involved in any work with young people and also consider purchasing professional liability insurance.

Setting up the training plan for a young client should include the use of a history and goals questionnaire, an assessment of pre-training fitness, and the identification of problem areas. When developing a training plan, it is best to outline a program for four to six weeks. It should be challenging but flexible enough to change if the goals are too hard or too easy. The use of video can be an excellent tool in helping young athletes and should be used along with training diaries and clear records of each athlete's program to evaluate progress. It is critical to re-evaluate the client at the end of each phase of the program to determine whether or not the program is working. If the athlete has not progressed, the trainer can change the program to get more improvement.