

Chapter 5 TRAINING AREAS OF FOCUS

The Catalyst Soccer Training Method areas of focus are key areas of soccer athleticism and skill important to the development, performance and success of a soccer player.

Learning Objectives

- ✓ Identify the key training areas of focus.
- ✓ Understand the purpose of each training area of focus for increasing a soccer player's performance.

Training Areas of Focus Overview

Soccer is a complex and highly demanding sport. From youth to elite levels of play the goal of conditioning and training a soccer player is to improve every aspect of their game. Soccer involves numerous actions that require strength, power, speed, agility, balance, flexibility and endurance.^{1,4} It is important to note that while some training areas correlate with each other they have limited ability in transfer and must be trained and tested separately^{2,3} These are essential concepts that need to be applied in custom training programs. Once the focus of training is established the trainer can elaborate on the best training that meets the specificity of the goals.

Catalyst Certified Personal Soccer Trainer (CCPST's) provide male and female soccer players, of all ages, the resources, education, structure, mental preparation, and physical fitness required for their level of soccer. Custom Training Programs focus on several areas, but each program is designed around the individual's/pair's needs and wants, so not all training sessions are formatted with the same goal. What follows are the primary areas of training and definitions.

Training Areas of Focus

Strength

The muscles' ability to generate force against objects. This is created during the negative/resistance motion of an exercise because the muscles must break down through contracting and lengthening in order to rebuild themselves to a new threshold point. Due to this, some soreness will most likely be experienced in order to increase strength. Strength exercises can be done with just body weight, resistance equipment, and in a static/isometric hold.



A number of different factors affect a muscle's ability to generate strength. The most common are: initial position, speed of lengthening, speed of shortening, eccentric initial phase, types of muscle fibres, number of motor units active at the same time, cross sectional area of the muscle, and impulse frequency.⁶ An important concept in regards

to strength training is that initial increases in muscle strength are due to more efficient motor unit innervation and neuromuscular adaptations rather than increases in muscle hypertrophy.^{4,5} To develop maximal force the maximum number of motor units need to be innervated. The small oxidative muscle fibers (Type I) are recruited first and then large fast twitch muscles (Type II).⁶ Type I muscle fibers are recruited first because they are slow to fatigue and have the largest oxidative potential. Type II fibers are more anaerobic and have faster contraction speeds but fatigue quickly. Type II fibers will generate more instantaneous force than compared to Type I fibers. To put simply, Type I fibers are where you find an athlete's aerobic capabilities and Type II fibers are where you find an athlete's anaerobic capabilities. Both muscles fibers work synergistically to produce maximal strength.

When training for strength the eccentric or negative motion is what is important. Research has shown that when eccentric training was compared to concentric training muscle strength showed greater increases from the eccentric group.⁷ With strength training there is an increase in hypertrophy over time which shows a connection with force development and cross-sectional area of the muscle.⁶ The eccentric training might induce anabolic effects and an increase of capillary density during hypertrophy training which has been reported to improve muscular aerobic capability.⁶ When training for strength there are numerous methods but the most common are 8-12 repetitions in series with submaximal (60-90% of maximal dynamic strength) the most widely used.⁶ Increases in dynamic strength are greatest when heavier loads are used. A load of 50% of max showed no significant increase of dynamic strength when compared to a load of 80% of max.⁶

An important misconception to overcome is that you cannot train both aerobically and incorporate strength training because will cancel each other out. This simply is not true if the timing of the training it taken into account and proper nutrition is followed. Strength training enhances aerobic performance through improved work economy as well as increased capillary density.⁶ A study on elite soccer players who participated in European Champions League found that there were no negative effects of carrying out concurrent high-intensity aerobic training and maximal strength training.⁶ The key concept to pull away from this study is that the aerobic training that was used was high intensity methodology. Since these are soccer athletes you are training not marathon runners the aerobic training should not be performed too far below submaximal and over too long a duration.