Training Room

SquashTalk
Training Room
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Common Misconceptions in Training

Developing a training program — weights, running, routines — that is tailored to the squash players needs in terms of quickness and muscular endurance.

Misconceptions in Squash Training by Frank Lutes © 2002

Squash players practice skills, drill shots, train aerobically, lift weights and do nearly everything to gain advantage over opponents. Why do hours of drills, weights, aerobics, and court time not always translate into victory?

One answer could be in the type of training.

ACCURACY, SPEED, POWER
As players, we might be putting significant training effort into the wrong activities. Squash requires fast movement to and from the ball, powerful shots with accuracy, and quick recovery from rallies. It is a sport where two opponents are constantly striving for shot accuracy. The ability of a player to control their own ball placement can make a big difference between winning and losing. In order to hit great shots, players must have a marriage of accuracy, speed and power.

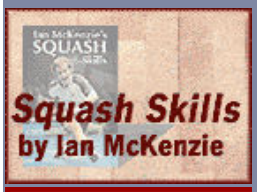
Many players follow practice drill routines which are great for skills development but fall short in training for speed and power. The training regiment of squash players must balance accuracy, speed and power to become successful.

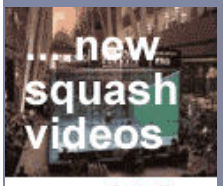
TYPICAL APPROACHES BEING USED
A widely held squash strength training principal is that light weights with high reps will help with speed and power. Players think that lifting with heavy weights will bulk them up thus slowing them down on court. Yes, squash is a game of speed and power. However, it is NOT lifting with light weights that will make players faster.

PROPOSED APPROACH - WEIGHTS
Lifting with heavy weights will result in the greatest increase in speed and power.

All of us are composed of two basic muscle fiber types called slow twitch muscle fiber and fast twitch muscle fiber.

Squash utilizes both muscle fiber types depending on time and intensity. Slow twitch (Type 1A) muscle fiber is characterized by smaller size, less force capacity and more endurance capacity. Their production is utilized after about 90 seconds of any given activity.





Slow twitch muscles are predominately used in such athletic activities as long distance running and cycling. Fast twitch muscle fibers (Type 2) are characterized by larger size, more force capacity, and less endurance capacity. Fast twitch muscle fibers actually have two subsets called type 2A and type 2B. Type 2A production is utilized between 25 and 89 seconds. Type 2B production is utilized from 0 to 24 seconds. (Please note that range times are approximate and dependent upon intensity.)

Fast twitch muscles are predominately used in such power events as sprinting, jumping, throwing and squash. Intensity (force) plays a factor in recruitment of muscle fiber. Depending on the intensity of an activity different muscle fiber types are recruited. Type 1A muscle fiber is recruited with intensity from 58% to 69%. Type 2A muscle fiber is recruited with intensity from 70% to 84%. Type 2B muscle fiber intensity is recruited with intensity from 85% to 100%. The more we train our Type 2A muscle fiber the better it will be able to sustain intensity for a longer period of time.

As we do any given activity whether lifting a weight, swinging a racquet, or running a 200-meter sprint, the body goes through a process of utilizing these muscle fiber types.

In the case of weight lifting, by lifting heavier weight our bodies are required to output more force production. To do this we enlist predominately type 2 muscle fiber. These fast twitch muscle fibers contract at a faster rate than slow twitch muscle fibers resulting in greater speed. We appear to be moving the weight slowly because it is so heavy. This type of training will not slow our game down. Training with heavier weight will result in faster movement on court.

The squash swing is a very fast movement that requires the synergy of all large and small muscle groups. The force that is needed to generate a strong swing would be better served by training with heavier weights and with anaerobic (sprinting) training.

PROPOSED APPROACH - RUNNING

In respect to anaerobic training, the fastest times in the world for the 100 and 200-meter sprint are around 10 and 23 seconds. The average A level squash rally lasts 7 seconds and the average professional rally lasts 15 seconds. (The longest rally ever, between Jahangir Khan and Gamal Awad lasted 7 minutes but its rare for even a professional rally to last over 2 minutes.) By comparing the times of sprinters and squash rallies it can be seen how important fast twitch muscle fiber is to the squash player. Running long distances (aerobic training) serves slow twitch (type 1) muscle fibers.

The reason why sprinting is so beneficial to squash is that as we get faster at running our sprint times, (and mimicking the same time used in a squash rally) we are improving how we utilize our fast twitch (type 2A and type 2B) muscle fibers. Even though squash is a sport that can take up 45 minutes or more of time it is an activity that is composed of many short increments of time with high intensity. We have all been winded after a long point. The reason why so many of us are out of breath is because we haven't trained our muscles correctly to sustain such high intensity.

ANAEROBIC CONNECTION

If we train our muscles anaerobically, we can sustain more speed and power for a longer period of time. To give another example, the average football play lasts seven seconds. Football players lift with heavy weights. They do this because their sport requires a great amount of intensity in a short amount of time. This is just like squash. Squash is a complex sport that utilizes multiple muscle fiber types and both strength and cardio training regiments should be designed accordingly.

When we understand how to properly train for squash, we can then take our bigger steps towards a balanced improvement of accuracy, speed, and power in our game thus ultimately achieving that elusive victory.