

## Training for Paddle Sports

by Tommi Paavola ( first published on PTontheNET.com in July 2006)

Questions are often raised on the importance of conditioning for some outdoor sports. One may think that as extreme sports are often intense and total by nature, add on conditioning would not be necessary. You cannot get around the fact that the sport itself will not prepare you best for the sport. You cannot become a kayaker by lifting dumbbells, just like you cannot become a climber by doing push ups. The connection between specific movement patterns and the body's ability to perform can only be produced in the particular movements of the sport itself. Only the sport itself trains the body in the right ratio of different motor components. For example, rock climbing involves strength, balance, coordination, flexibility, endurance and power in a specific formula that can only be reached by climbing. However, the human body seems to require a diverse combination of stimulations to become an optimally performing specimen, and that is where conditioning comes into the picture. This is supported by the fact that every single successful athlete dedicates a considerable amount of time and effort into programmed sport conditioning. The focus of this article is on conditioning that is not performed within the sport activity itself - supplemental conditioning, if you will. As examples of conditioning within the sport, kayakers can condition themselves by paddling sprints of various durations and intensities. Climbers can perform reactive "dyno" training repeatedly for power and lock-out strength. Hikers can focus on the performance specificity by carrying different loads with different speeds.

Supplemental conditioning consists of exercises that are designed to assist in the following areas:

1. Enhancing the strengths and weeding out the weaknesses of the performance.
2. Optimizing the body's overall movement ability and performance capacity in order to enhance adaptation through sport specific conditioning.
3. Preventing injuries that might be caused by repetitive movement patterns.

These are the conditioning concepts that a personal trainer or conditioning coach can implement in a training program and help outdoor athletes in reaching their optimal performance!

### Conditioning for Paddle Sports

Kayaking and canoeing are excellent sports and magnificent ways to stay in shape. Paddling provides great stimulation for rotational patterns within the torso and upper body. In addition, the lower body is also active despite not being directly involved in producing dynamic propelling movements. The goal of this article is to introduce foundational concepts for paddle sports conditioning. We'll explore common myths about training and conditioning for a kayaker or a canoeist in an effort to provoke you to analyze and think about the objectives of conditioning and add a little flare to your program design.

#### **Myth #1: Most conditioning exercises should be performed in a seated position.**

Myth Buster: It would be easy to come to the conclusion that while the paddling is being performed in a seated position, a big part of the conditioning should be done in the same position. An important concept to grasp in terms of any sport conditioning is that we as trainers should make sure the body works optimally in an upright position before advancing into specific movement patterns. The better the body functions in standing, the better it will do in a seated position. Some of the kayakers' main complaints can actually be caused by the seated position as we "practice sitting" too much. We all know what tight hip flexors or dysfunctional posterior chain does to our well being and movement skills. What most paddlers do not develop automatically by sitting in a kayak/canoe is a stable and strong hip that is well connected to the rest of the body through the core musculature.

#### **Myth #2: Only an unstable surface can prepare for the demands of paddle sports.**

Myth Buster: There is really no great substitute for unstable hull and water conditions. Once the torso musculature and the hip have been activated properly, the reactive and unstable training stimulation can be achieved best within real-life application. Exercises on dyna-discs and stability balls can be used when someone has not been in a kayak/canoe for a while or ever. Your goal is to make the transfer as smooth as possible. However, it should be noted that these exercises alone will not make you better at paddling. As the basic strength and movement skills improve, it is time to introduce more unstable exercises such as upper body push/pull patterns with a cable or band while sitting on a dyna-disc or a physio ball (Picture 4).

**Myth #3: Legs and hips are not important in paddling.**

Myth Buster: The better kayaker you are, the more your paddling becomes a total body movement. The legs provide a stable connection to the boat, and they are used to initiate the stroke and rotation of the pelvis and torso. Also, if you have ever knelt in a white water canoe, you understand the crucial role of your lower body and hips. Paddling is all about translating the power through your whole body, just like most athletic movements.

**Myth #4: Most of the exercises should imitate the paddling position and motion as closely as possible.**

Myth Buster: Based on my own experience, trainers should not get too caught up on trying to find exercises that resemble paddling as much as possible. Clients might be satisfied when they think they are getting the best bang for their buck by sitting on the floor and rotating a body bar in paddle-like manner, but we as trainers need to be more educated than that. Instead of just imitating the movement, try to look at the movement of your client on a more general level. Do you like the overall posture? Is the shoulder girdle protracted or retracted? Are the calves so tight that the back rounds in the seated position? Are the rotational movements smooth and well wired? If you are not happy with the general movement skills and abilities, then focus on those areas first, and you will improve the paddling experience tremendously.

**Myth #5: Paddling itself is enough for upper body conditioning.**

Myth Buster: Kayaking and canoeing are superb training for upper body musculature, there is no question about that. However, all the repetitive movement patterns can become a source of problems rather than solutions. A pull up is a great exercise, but if you do nothing but pull ups, the imbalance created will eat all the good results. For anybody involved in an activity with such volume of repetitive movement, the “reverse exercises” can be helpful. By reverse exercises, I mean movements or activities that will help the body to neutralize the harmful effects of paddling and enhance the good. For a trainer, it is important to recognize that a paddle stroke can be considered a pulling motion based on the biomechanics of the movement. A rotational pushing movement such as a one-arm press with a cable or band would be an excellent “reverse exercise.” Visualize reversing the forward paddling motion and analyze which movement patterns and muscle groups take charge. Apply this to your training, and you are able to create a balanced program. Sports such as kayak polo actually require reverse paddling, but most paddle sports dominate in forward strokes.

**Key Concepts in Paddle Sports Conditioning**

1. Create a stable base by conditioning in standing position first. Think total body. Choose exercises that simultaneously involve all the components of the power source of your body: the hips, lower back, abdominals and scapular region.
2. Strengthen the rotational movement patterns of the body. Use resistance bands, medicine balls and dumbbells in a standing position. Anytime you perform single leg, single arm or alternating patterns, you are enhancing your body’s ability in rotation.
3. Create a stable and mobile scapula. First of all, the flexibility exercises should target the good old latissimus dorsi, pectoralis major/minor and trapezius in order to balance out the muscle groups and prevent any shoulder issues. Then try to enhance the mobility of the scapula in all planes of motion.
4. Address the flexibility of the posterior chain and hip flexors. Include integrated flexibility exercises that target the whole backside at once, such as the “inchworm” exercise (part of the circuit below). In addition to the posterior chain, include pre- and post-workout hip flexor stretches to “fight the negative effects of the sitting position.”

**“Become a Speed Boat” Circuit (see images below)**

Here is an example of a circuit that can be used with a kayaker/canoeist who already has some experience in training and no limitations in these movements. The circuit is based on the key concepts mentioned above. It will be challenging for anybody if the variables are adjusted properly. You can use this format during pre-season or in-season one to three times a week,

depending on the general training volume and intensity. It is designed to be a four-week program with weekly progressions in the number of sets.

The desired work-rest ratio is 30 seconds of work and 30 seconds of rest. Start with one set each and progress up to four sets. Depending on the primary goal, rest intervals and loads can be adjusted accordingly: shorter rest for more metabolic response and greater load for strength development.

You can extract exercises from the circuit and use them independently, but remember that the circuit format will prepare the body in a more complete way for the various physiological demands of paddling.

