

Weight Training for Swimming

A Group Discussion

From: Matt Johnson (mattjohnson_mn@yahoo.com)

Greetings to any medically- and fitness-inclined TI experts,

Have a three questions related to maintaining a weight-training regimen:

1. Is there real value to be gained by doing a lot of light-weight, high-rep weight training (focused on good shoulder exercises) in terms of reducing the threat of shoulder injury? Based on the super articles that Kevin Joubert posted, it seems that the main factor is proper swim technique. If that is so, then I will drop the weight-lifting in favour of doing a lot more TI drills. (Would basically buy me 4-5 more hours in the pool every week.) I do not have any shoulder problems at the moment, but I have been lifting as a preventive measure. (I plan to do some long-distance swims this year, and I don't want to blow-out a shoulder before I even start my "real" swims.)
2. What is the conventional wisdom on whether high-rep weight training actually helps a person's endurance? In other words, if I do maintain the 4-5 hours per week in the gym, is it going to help me complete long-distance swims?
3. If the answer to 2. above is "no benefit to swimming endurance", then would it, nonetheless, make sense to still focus on core-based training? Is that type of training going to help me to complete long swims? I tend to think that this type of exercise might be good, because it stresses the muscle groups that help hip rotation.

Thanks for anybody who wants to comment. Apologize for the length of this post, but these queries are key to helping me decide how to budget my time.

Later,
Matt

From: Kevin Zeng (see198@hayoo.com)

Matt,

Doing shoulder exercises will without a doubt maintain joint integrity. Internal and external rotations will keep the head of the humerus in the position by keeping the muscles around it strong. Now, good form will keep the shoulder from rubbing. Watch a non TI swimmer and see how they sweep their forearms around and forward. That movement causes wear and tear and the shoulder girdle. The weaker the shoulder muscles are the more movement there is going to be, thus more arthritis.

High rep training will benefit your energy systems, and in a round about sort a way, your endurance level overall. I imagine you also run and bike? Well doing high reps increases the level of mitochondria at the cellular level or white muscle fibre. White muscle fibre is responsible for slower-twitch movements. Red muscle fibre is responsible for fast-twitch movements. So by doing low weight high reps, you increase white muscle fibre. When you enter the water this will make it easier for you to train and swim the longer distances.

You should focus on training the entire body, not just one area. I would suggest buying a medicine ball to do trunk stabilization exercises and core rotation. Also, you have a great gym without having to go anywhere. I used to train with weights a lot, but I've since been doing only body resistant exercises. A partner can also be a good thing to have so you can do towel exercises which can focus on increasing joint flexibility and strength at the same time. Well hope some of this helps.. feel free to contact me if you want more info on any of these topics.

Kevin

From: Matt Johnson (mattjohnson_mn@yahoo.com)

Hi Kevin,

Thanks for the prompt and very useful comments. You are hitting on exactly the points I am interested in. Let me bore you with a few follow-ons, assuming that my swimming goals are to complete 10-20 mile open-water swims. And, I don't run or bike.

1. Shoulder exercises: Can you recommend a weight-lifting exercise routine you would prescribe (exercises, reps, sets, and frequency)? Regarding the non-shoulder exercises, I think I am decently self-guided. I am just interested in shoulder exercises at this point.

2. Medicine ball / Stability ball: The gym I belong to has both medicine balls and large, inflated, rubber "stability balls". I could therefore do the "trunk stabilization" stuff you recommend. Once again, can you please outline the best (perhaps the most important 4-5) exercises I should do with those two spheroids?!

Thanks in advance, Kevin.
Matt

From: Derek Radcliffe (dkradcliffe@sbcglobal.net)

I'll weigh in with my two cents worth. Fitness is all about being balanced. If you rely solely on swimming then there is a possibility for the muscles surrounding the shoulder joint to get stronger in one or two dimensions.

Generally, I think swimming will strengthen the posterior deltoids, lats and some of the small rotator cuff muscles(to name a few). The concern would be that the front of your deltoid is weaker than the rest. Also, an imbalance in the rotator cuff muscles could result in some injuries for sure.

A balanced program will benefit you in this regard. While you probably don't need 6 hours of weights a week 1-2 hours invested wisely could improve your joint health.

Derek

From: Brad Bener (bbender@ufl.edu)

I think the best rotator cuff program is a series of "Codman" exercises. These are also referred to as pendulum exercises and are typically used for shoulder rehab, but also in sports medicine to prevent shoulder injury. They are kind of hard to describe w/o a picture but the principle is that you bend at the waist and hold a light weight (even as little as 3-5 lbs to start) and move your arm around in circles and then back and forth motions. you should start with about 10 small circles or arcs and follow this with 10 large circles/arcs. Work up to 20 of each prior to increasing weight. The reason you need to bend at the waist and hold the weight below your shoulder is that it stretches the shoulder. Doing lifting above the head tends to compress the muscles and inhibit range of motion.

A website that gives a diagram is:

<http://www.mckinley.uiuc.edu/Handouts/shoulder/shoulder.html>