

# ACL Rehab

**A**re you taking your anterior cruciate ligament (ACL) patients in the water? If you are treating a partially torn ACL — or a reconstructed ACL — you will want to follow some restrictions. For instance, you will need to avoid open chain terminal knee extension. In other words, you need to avoid resisted knee extension for the last 30 degrees of extension.

So, what does this mean for treatment? Do not put your patient in a resistance boot (or a flipper or fin) and then have the person rapidly flex and extend against the resistance of the water.

Why would this be a concern? The flexion component of the exercise would not be. In fact, resisted hamstring work is ideal for ACL rehab. Your hamstrings need to be “supertrained” in order to take on the role as a “supplemental ACL”.

It is the resisted extension that will get you into trouble. During the last 30 degrees or so of knee extension, the tibia will start to translate anteriorly on the femur. Why? The insufficient or newly constructed ACL will be inadequate to hold in into position. This stretches the ACL and is contraindicated immediately after surgery or during conservative management of a partial ACL tear.

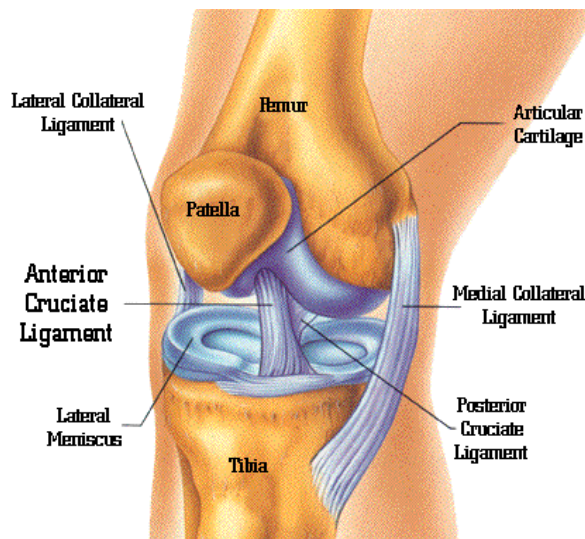
The reason CLOSED chain exercises are considered the gold

standard of ACL rehab is simple. During a closed chain task, you will get a co-contraction of the hamstrings at the same time as the contraction of the quadriceps, thus preventing this anterior tibial translation (the hamstrings serve as a supplemental ACL).

Patients who get into the water 5 to 7 days after surgery (usually after their first post-operative visit with the MD to remove the staples) can expect a host of benefits to follow.

- Reduction in swelling;
- Normalization of gait without need for assistive devices;
- Reduction in pain;
- Increase in ROM (due to the reduction in swelling);
- Increase in functional scores on a tool like the Lyshom scale.

Therapists looking for more information on orthopedic aquatic rehabilitation are directed to [Aquatic Therapy Programming: Guidelines for Orthopedic Rehabilitation](#) by Joanne M. Koury. It is available at [www.bn.com](http://www.bn.com) or [www.amazon.com](http://www.amazon.com) for \$37.



**E**ver wonder why ARN keeps making such a big deal about aides providing treatment in the therapy setting? Well here’s one to take to the bank.

According to an August 2, 2005 article by Barry Carter in the Star-Ledger newspaper, a New Jersey jury ruled an unlicensed aide caused damage to a patient — and awarded \$3 million in damages to a woman who was injured during physical therapy for her shoulder.

The woman’s attorney said the award sends a message to Health-South that it cannot use unlicensed aides to do the job of a PT.

"The jury sent a message that this practice of assigning unlicensed people to engage in physical therapy is illegal, a violation of the law and that it has to stop," Kelsey said.

More at [www.nj.com](http://www.nj.com) (search under Star-Ledger newspaper for the keywords “shoulder injury costs Newark rehab”).

## ACL rehab & water

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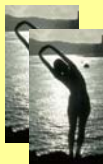
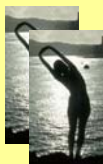
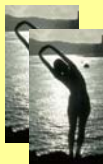
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Andrea Salzman, MS, PT  
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## What is Aquaticnet.com?

The Aquatic Resources Network (ARN) was founded in 1995-96 when a handful of my students started asking questions about aquatic exercise. At that time, clinicians were struggling to find a credible, international clearinghouse of information devoted solely to aquatic therapy. There was a real need to connect students and clinicians, companies and consumers. Today, I'm proud to say, we have grown from our original 30 charter members to thousands of therapists across the world. So join our members and share your love of aquatic therapy with PTs, OTs, CTRs, ATCs, exercise physiologists, kinesiologists, massage therapists .... and the world! Stop re-creating the wheel. We can help you be a success at what you love the most. [We are The Aquatic Therapy Command Center.](#)

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