



Injury Guidelines: What should you do when you have pain...

Green zone (0-3): Normal

- Pain subsides after a few hours of rest
- Continue to train
- Begin using ice and NSAIDs especially if pain reaches 3/10 or above
- Mention pain to coach

- use fins to alleviate pressure on shoulder

Yellow Zone (4-5): "Heads-up"

- Pain continues 4-8 hours after resting
- Consider "relative rest" - decrease training volume, longer warm up and slower speeds
- Handle with coach

Red Zone (6-10): Rehabilitation

- Pain continues into the next day
- Consider removing from training
- Trial 3 days of absolute rest
- Refer to sports medicine and rehabilitation

Come see us!

OSU Sports Medicine's endurance medicine team provides specialized training and care for the aquatic athlete.

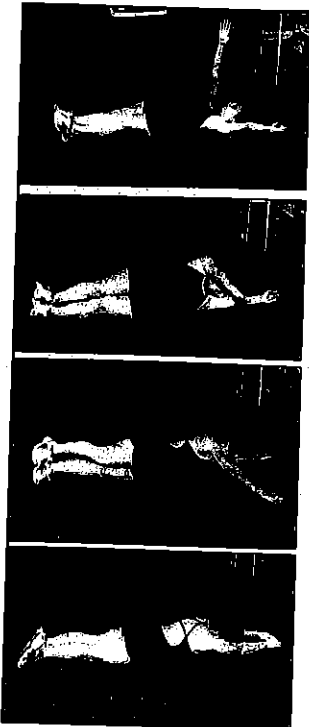
Our endurance medicine team is comprised of sports medicine physicians, sports physical therapists, athletic trainers, and strength and conditioning specialists/sports medicine specialists who have extensive training and experience.

Due to the unique nature of swimming mechanics, athletes are prone to shoulder, back, and knee injuries. Our endurance medicine team is trained in restoring proper joint mechanics, balancing muscle function, improving movement and stroke mechanics, stroke modification, and developing efficient technique. Whether you are interested in treating recurring injuries that are keeping you from reaching your goals or looking for ways to improve your performance, OSU Sports Medicine's endurance medicine team will work with you to meet your objectives.

We offer a wide array of services including:

- Injury prevention education
- Aquatic specific treatment
- Training advice and programs
- Surgical and non-surgical rehabilitation
- Fast recovery from injury
- VIDEO STROKE ANALYSIS

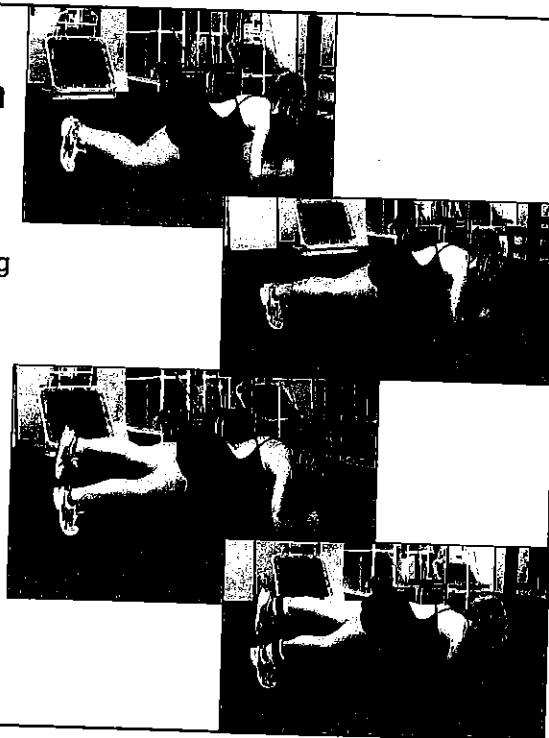
Upper Extremity "Rolling"



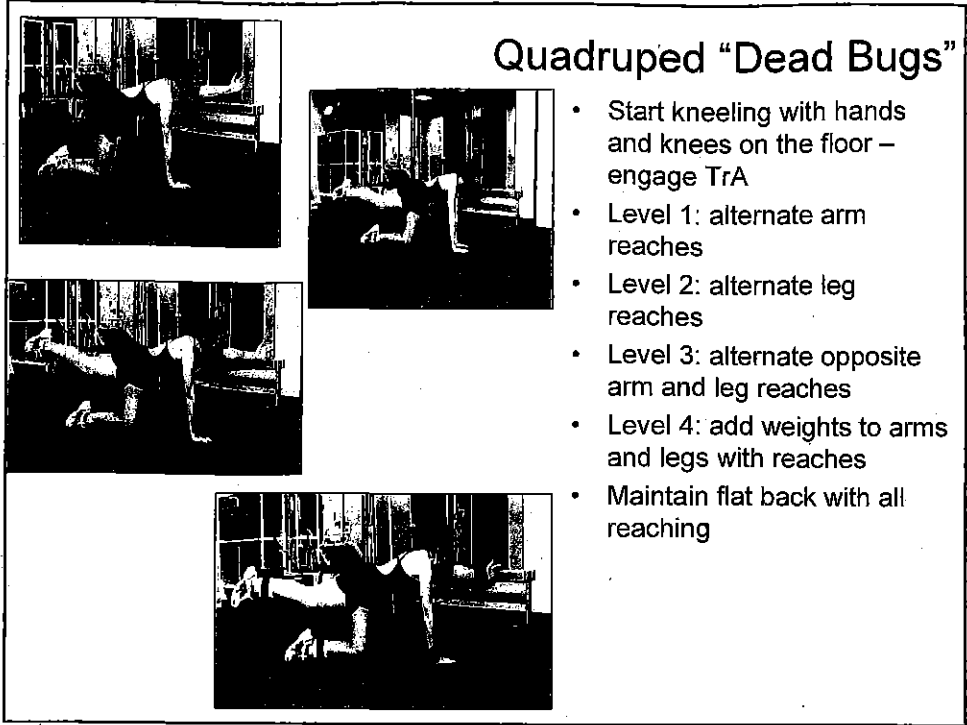
- This is a progression of "lower extremity rolling"
- Start on your back with L arm overhead and R arm up towards ceiling
- Look to L armpit and reach across body with R arm
- Use core to bring lower body forward off floor (avoid pushing into the floor with R heel and avoid initiating movement by reaching with head/neck)
- Control "drop" as upper body lowers forward to floor
- **Core/obliques are the main movers here, not your hips, back, or arms
- **Slower movements will assist use of the proper core musculature instead of use of momentum
- Repeat with roll in the opposite direction starting from laying on your back

Plank Progression

- Level 1: on knees
- Level 2: full planks
- Level 3: full plank with one leg elevation (alternate legs each sets)
- Level 4: full plank with leg elevation with ankle weight
- Feel this in your core – maintain flat back
- If you feel this in your low back muscles, move down one level



Quadruped "Dead Bugs"

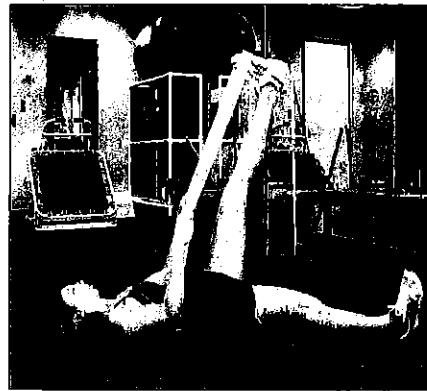


- Start kneeling with hands and knees on the floor – engage TrA
- Level 1: alternate arm reaches
- Level 2: alternate leg reaches
- Level 3: alternate opposite arm and leg reaches
- Level 4: add weights to arms and legs with reaches
- Maintain flat back with all reaching

Hamstring Stretches



Hamstring/Adductor stretch



Hamstring/calf stretch

Hold each for 20-30 seconds
Repeat 2-3 times to each side

Clamshell and Reverse Clamshell



Keeping feet together, lift top knee away from bottom knee without rolling backward

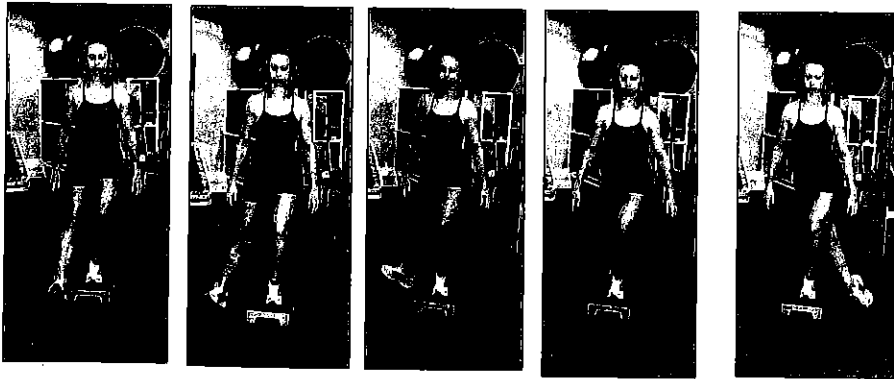
20 repetitions



Keep top knee raised, lift and lower the top foot to the bottom foot

20 repetitions

Heel Taps (Quad/VMO Strengthening)

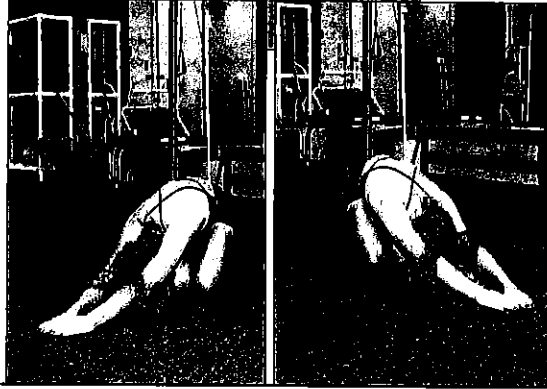


- Slowly bend your knee and tap opposite heel/toe on floor in varying directions, tighten thigh of stance leg to return back upright
- Do not allow knee to cave inward
- Try to do about 10 repetitions each way

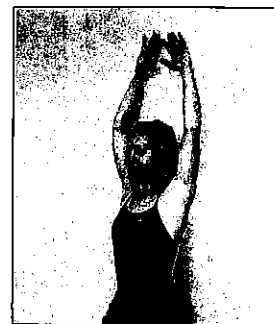
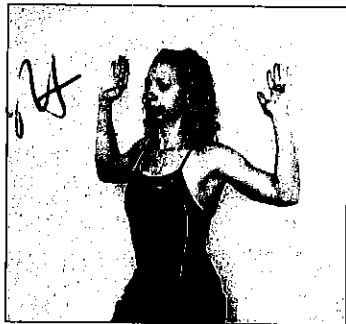
- knee pain
- weak quad
- Tight IT Band

Kneeling "W"

- Start kneeling on the floor
- Reach hands forward and feel stretch in back – hold 30 seconds
- Stretch by moving your upper body right and left
- Hold stretch in each position for 30 seconds



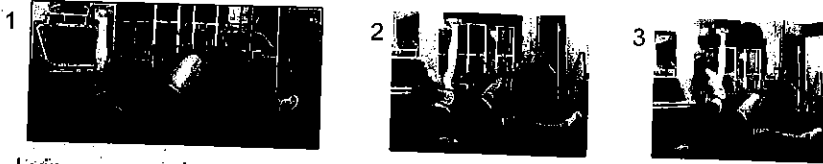
Shoulder Angels



Standing with your back flat against the wall, squeeze your shoulder blades behind when starting in a 90/90 position. Extend your arms as far as possible into a streamline position while maintaining a flat back with elbows and hands touching the wall.

- Thoracic spine
↳ core strength

Turkish Get-up



Lying on your back with arm at 90 degrees shoulder flexion, roll to opposite elbow with arm overhead (2), then onto hand (3), bridge onto standing (7). At each stage make sure to keep arm overhead and shoulder blades squeezed together.



→ shoulder stability
→ endurance

credit to
with a
small amount
of shoulder
ES.

How to contact us:

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