Strength Training for Triathletes:

*A Full Body Approach*

Karla Bock, B.S.
USAT Level I Triathlon Coach
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Goals

✓ Recognize the variety of benefits from incorporating a strength program into your training regimen.

✓ Develop an understanding of how to train and utilize a balanced all body program.

✓ Understand exercise progressions for strength training.
You will quickly see that “different” forms of training overlap with one another (i.e. balance and core training). Ideally, they will blend together to make a complete training program.
~ Benefits of Strength Training ~

1. Increase in endurance cycling capacity & lactate threshold (*1991 study*)

2. Improvement in exercise economy (*1997 study*)

3. Stronger core creates a stable platform for swimming, pedaling power on the bike, and posture on the run

4. Increase in muscle strength in legs = more power

5. Increase in muscle strength & endurance helps prevent fatigue from constant jarring and correction
~ Benefits of Strength Training ~

6. Improved bone density and health

7. Helps prevent overuse injuries

8. Assists in maintaining proper muscular strength ratios

9. Increased upper body endurance – stronger swim and increased comfort on the bike

10. Protection in falls on the bike
~ Posture and Alignment ~

- Posture and alignment are the keys to creating optimal function. The functional interaction of each component in the kinetic chain allows for efficient and effective movement.

- The core is an often neglected chain “link” that can dramatically contribute to improved health, athleticism, and sport performance. (Note: This can take a LONG time to correct!)

- Training muscles outside of the sagittal plane is another component often ignored that can have an impact on injury prevention and performance.
PANEL 1 – Healthy Posture Check
• Stand tall with stick
• Feel stick: at back of head, between shoulder blades, and on tailbone

PANEL 2 – Moving Posture Check
• Walking with stick
• Feel stick: at back of head, between shoulder blades, and on tailbone

PANEL 3 – “Athletic” Posture Check
• Squatting with stick
• Feel stick: at back of head, between shoulder blades, and on tailbone
Preparing a Weight Training Program:

1. What are your goals/what are you training for?
2. How much weight training experience do you have?
3. What biomechanical imbalances/challenges are affecting you?
4. Do you have any muscular strength imbalances or weaknesses?
5. Are you dealing with any injuries?
6. How much time do you have to put towards your program?
7. What equipment/facility do you have available to you for training?
Other Considerations:

- Program doesn’t have to be extensive in length/number of exercises.
- Have the exercises provide a purpose.
- Adjust your program to the part of the season you’re in.
- Think about quality of the lift over quantity.
- Master the technique/movement.
- Connect your mind to the muscle you’re working – movement pattern you’re moving through.
Progressing a Weight Program:

1. Start workouts with a dynamic warm-up = 5-10 minutes

2. Begin with a basic exercise/movement and advance by:
   - adding plane changes
   - balance components
   - intensity of exercise by combining exercises

3. Change the volume by:
   - varying the number of repetitions and/or sets
   - doing the workout as straight sets or in a circuit format.

4. Vary exercises by the props you have available –
   - medicine ball vs. tubing;
   - facing resistance; resistance coming from the side; etc…
Example Weight Program:

1. Bent over Row
2. Single Leg Bench Squat
3. Med Ball Chops
5. External Rotation
6. Med Ball Overhead Squats
7. Back Extensions
8. Torso Twists
9. Physio Ball Walkouts
10. Lunges
~ Dynamic Warm-up ~

Movement Options:
- Forward Skip
- Backward Skip
- Carioca / Grapevine
- Side Skip
- Side Shuffle

Equipment Options:
- Agility Ladder
- Hurdle Stepping
- Combine all of the above
~ Bent over Row ~

Position Checks:
- Shoulders down/retracted
- Abs engaged
- Knees unlocked (if standing)

Advance Move By:
- Sitting on Physio Ball
- Prone on physio ball
- Legs bent or legs out straight
- Lunge position
- Alternate arms adding rotation
- Plank position
~ Bent-over Row ~
~ Single Leg Bench Squat ~

**Position Checks:**
- Shoulders back; chest up
- Abs engaged
- Knee of working leg unlocked
- Weight forward on working leg

**Advance Move By:**
- Back foot on physio ball
- Working leg on uneven surface – i.e. Foam roller; disc pillow; bosu.
- Weight overhead – hold med ball
~ Med Ball Chops ~

**Position Checks:**
- Tall posture = shoulders down; abs engaged
- Knees unlocked

**Advance Move By:**
- Add toe raise on finish
- Change direction (i.e. – diagonal)
- Add a balance component
~ Push-ups / Chest Press ~

**Position Checks:**
- Shoulders back; neck in line with the spine
- Abs engaged
- Legs active
- Elbows unlocked

**Advance Move By:**
- Add balance component
  - physio ball – hands or feet on ball
  - bosu
  - leg raise/single leg support
  - hand on a med ball (one or both)
- Staggered hand placement
~ Push-ups / Chest Press ~
~ External Rotation ~

Position Checks:
- Tall Spine
- Shoulders down – slightly retracted
- Elbows by sides – not pinched in
- Hold posture during movement

Advance Move By:
- Using hand-weights or cable
- “Goal Post” Position
- Alternate arms in goal post position
~ Med Ball Overhead Squats ~

**Position Checks:**
- Shoulders down
- Abs engaged
- Knees soft/unlocked
- Knees behind toes in squat position

**Advance Move By:**
- Adding toe raises on extension
- Adding Single Leg Balance
- Standing on uneven surface (balance board; bosu; each foot on a foam roller or disc pillow)
~ Back Extensions ~

**Position Checks:**
- Shoulders back
- Abs engaged
- “Long” neck

**Advance Move By:**
- Adding unstable surface – physio ball
- Add a reach or press at top of motion
- Hold weight at chest level
~ Torso Twists ~

**Position Checks:**
- Shoulders down
- Elbows by sides; relaxed
- Abs engaged
- Knees soft/unlocked

**Advance Move By:**
- Change Direction (i.e. reach high)
- Use different mode – tubing; stick
- Tubing with partner
- Single leg balance
~ Physio Ball Walkouts ~

**Position Checks:**
- Core engaged!! Critical to take weight off of hands
- Shoulders away from ears / long spine
- Legs active

**Advance Move By:**
- Walk out further – gradually to toes
- Add push-up at outmost position
- Longer hold at outmost position
- Limb raise at outmost position
- change to “inch worm” w/o ball
~ Inch Worm ~

**Position Checks:**

- Core engaged!!
- Shoulders away from ears / long spine
- Walk feet to hands – then walk hands away from feet to plank position.
~ Lunges ~

Position Checks:
- “Good Posture”
- Abs engaged
- Knee over ankle / behind toes

Advance Move By:
- Change direction/type of lunge –
  - Back; Side; Crossover; “Bowler”, etc.
- Add apparatus –
  - Med Ball; Stick; Hand Weight
- Add motion –
  - Twist; Side Lean; Extension; Flexion
- Combine Movements –
  - Crossover to Side Lunge
  - Front Lunge to Back Lunge
~ Lunge – options ~
~ References ~

- “Cycling Performance Tips”; Jesper Bondo Medhus, trainingforcyclists.com

- “Resistance Training For Endurance Cyclists, Part 1”, Dan Kehlenbach & John Hughes, Ultra Cycling


Questions?

Karla Bock, B.S.

USAT Level I Triathlon Coach
UW Sports Medicine
621 Science Drive
Madison, WI  53711

608.261.1829

kbock@uwhealth.org