

Objectives

- ▶ Explain how overuse injuries are developed
- ▶ Discuss areas of focus for prevention of overuse injuries during the coming season
- ▶ Define core stability and how it pertains to posture and balance
- ▶ Provide examples of exercises that work on areas of weakness that can contribute to overuse injuries in cyclists
- ▶ Learn tips to prevent winter weight gain

What Is An Overuse Injury?

- ▶ Overuse injuries develop over time and are the result of repetitive micro-trauma to the tendons, bones, and joints.
- ▶ Most common causes in cycling:
 - ▶ **Improper bike fit**
 - ▶ **Poor bike posture**
 - ▶ **Faulty pedaling mechanics**
 - ▶ **Training errors**

<http://blog.pennpartners.org/avoiding-overuse-cycling-injuries/>



Prevention of Overuse Injuries

- ▶ Areas of focus:
 - ▶ Flexibility
 - ▶ Developing a stable base
 - ▶ Strength training
 - ▶ Cardiovascular endurance
 - ▶ Trainer workouts

Flexibility

- ▶ Muscle groups/body areas:
 - ▶ Hamstrings, Gluteals, Hip flexors, Iliotibial band, Gastrocnemius/soleus, Latissimus dorsi, Pectorals, Lumbar
- ▶ Important for function of the muscle groups and maintaining good posture

Examples of flexibility exercises for each muscle group



Developing a Stable Base

- ▶ Local stabilizers
 - ▶ Maintains good neutral spine posture, no ROM, continuous activity (endurance not strength)
 - ▶ Transversus abdominis, multifidus, psoas, rotatores, pelvic floor
- ▶ Global stabilizers
 - ▶ Controls ROM, decelerates/corrects poor posture
 - ▶ Internal oblique, external oblique, spinalis, gluteus medius
- ▶ Global movers
 - ▶ Produces ROM, allows for powerful changes in position on bike (standing out of saddle)
 - ▶ Rectus abdominus, iliocostalis, quadratus lumborum, gluteus maximus

Balance

- ▶ Balance is the ability to maintain your center of mass within your base of support
 - ▶ Local stabilizers co-contract efficiently to maintain your posture on the bike
 - ▶ Global stabilizers contract to correct and re-establish good posture



Strength Training

- ▶ Muscle groups:
 - ▶ Quadriceps, Hamstrings, Gluteus maximus, Gastrocnemius, Iliopsoas, Latissimus dorsi, Erector spinae



Bang for you Buck Exercises

| | BALANCE | CORE | STRENGTH |
|-----------------------------------|---------|------|----------|
| Step up with high knee | ✓ | ✓ | ✓ |
| Deadlifts with water bottle reach | ✓ | ✓ | ✓ |
| Lunges | ✓ | ✓ | ✓ |
| Kira's Core Circuit | ✓ | ✓ | ✓ |

Bang for Your Buck Exercises



- ▶ Step up with high knee (balance, core, LE strength)



- ▶ Deadlifts with water bottle reach (balance, core, LE strength)



- ▶ Lunge progressions (balance, core, LE strength)

Kira's Core Circuit

****Goal= 3 sets of 1 minute each****



► Modified core circuit:



Lynne's Core exercises



Cardiovascular Endurance

- ▶ Elliptical
- ▶ Swimming
- ▶ Trainer
 - ▶ Work on pedaling mechanics, cadence training, posture awareness
 - ▶ Intervals for higher resistance/cadence



Training Schedule

- ▶ Stretch daily
- ▶ Alternate strength/balance/core days with cardio days
OR
- ▶ Cardio first, then strength/core/balance after

| Day | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|--------|------------------------------|----------------------------------|------------------------------|----------------------------------|------------------------------|----------------------------------|--------------|
| Week 1 | 15-20 Cardio 40 Sculpting | 30-40 Cardio 10 Abs & 10 Legs | 20-30 Cardio 30 Sculpting | 30-40 Cardio 10 Abs & 10 Legs | 30-40 Cardio 40 Sculpting | 30-40 Cardio 10 Abs & 10 Legs | 30-40 Cardio |
| Week 2 | 15-20 Cardio 40 Sculpting | 30-40 Cardio 10 Abs & 10 Legs | 20-30 Cardio 30 Sculpting | 30-40 Cardio 10 Abs & 10 Legs | 30-40 Cardio 40 Sculpting | 30-40 Cardio 10 Abs & 10 Legs | 30-40 Cardio |
| Week 3 | 15-20 Cardio 40 Sculpting | 30-40 Cardio 10 Abs & 10 Legs | 20-30 Cardio 30 Sculpting | 30-40 Cardio 10 Abs & 10 Legs | 30-40 Cardio 40 Sculpting | 30-40 Cardio 10 Abs & 10 Legs | 30-40 Cardio |
| Week 4 | 15-20 Cardio 40 Sculpting | 30-40 Cardio 10 Abs & 10 Legs | 20-30 Cardio 30 Sculpting | 30-40 Cardio 10 Abs & 10 Legs | 30-40 Cardio 40 Sculpting | 30-40 Cardio 10 Abs & 10 Legs | 30-40 Cardio |
| Week 5 | 15-20 Cardio 40 Sculpting | 30-40 Cardio 10 Abs & 10 Legs | 20-30 Cardio 30 Sculpting | 30-40 Cardio 10 Abs & 10 Legs | 30-40 Cardio 40 Sculpting | 30-40 Cardio 10 Abs & 10 Legs | 30-40 Cardio |

NO TEST

How to prevent winter weight gain

- ▶ 1. Schedule exercise – try winter sports like ice skating or skiing
- ▶ 2. Be wary of alcohol
- ▶ 3. Weigh yourself weekly
- ▶ 4. Choose party foods wisely
- ▶ 5. Keep healthy snacks available
- ▶ 6. Host a fitness party
- ▶ 7. Keep tabs on how your clothes are fitting
- ▶ 8. Combat stress
- ▶ 9. Drink plenty of water

HAPPY TRAINING!

