Patellofemoral Tracking & McConnell Taping
Patellofemoral Tracking Disorder

- Commonly described as having anterior knee pain.
- Occurs when the patella does not "track" correctly when bending or straightening the knee.
Patellofemoral Tracking Disorder

- Women are at a greater risk than men
  - Due to an increased Q-angle
    - Increased Q-angle causes the quadriceps to pull on the patella which leads to patellar tracking
- Most frequent in young athletes and adolescents
- Weak VMO
- Trauma
- Laxity of the surrounding ligaments
- Excessive pronation of the foot
Patellofemoral Tracking Symptoms

- Pain increases when...
  - Walking on an incline
  - Jumping
  - Stair climbing,
  - Squatting
  - Prolonged sitting & kneeling
  - Standing up from a chair.

- Swelling of the knee

- Grinding or popping sensation
Interventions

- **Physical Therapy**
  - Strengthening
  - Stretching
  - Taping
  - Bracing

- **Surgery**
  - Repeated subluxation of the patella
  - Knee joint deformity
  - Articular cartilage damaged

- **Drug Therapy**
  - NSAIDS

- **RICE**
- Rest!!

*If left untreated: can lead to OA or Chondromalacia*
Exercises

- Quadriceps are the most common group to strengthen because of the role they play in patellar movement.

- Stretching
  - Hamstring stretch
  - Quad stretch

- Strengthening
  - Isometric quad sets
  - Short arc quads
  - Straight leg raises
What is McConnell Taping?

- Originally introduced in 1984 by Jenny McConnell.

- McConnell taping technique helps to keep the kneecap in alignment.

- Primary goal:
  - To pull the patella away from the painful area to reduce pain
McConnell Taping

- Patients should feel immediate pain relief.

- Encourage patients to exercise with tape on in order to give appropriate feedback to the muscles.
How is it applied?

- **1st**: Clean the area that will be covered with an alcohol swab
- **2nd**: Palpate the patella
- **3rd**: Apply white cover strip
- **4th**: Apply McConnell tape (also known as leukotape)
Benefits of McConnell Taping

- Reduces pain during activity
- Corrects mal-alignment of the patella
- Improves activation of the VMO
- Aids in healing
Although the results from uncontrolled studies were encouraging, the results of three randomized clinical trials have not been consistent.

- Two of the trails found no benefit when patellar taping was added to a program of physical therapy.
Progression/Regression?

- Feedback from the patient on how they’re feeling is important in finding out if McConnell taping is working or not.

- Glide the patella medially to recognize if there is still limited movement.
References

Dutton, M. (2012), Orthopedics for the Physical Therapist Assistant Pages 540-542, Jones and Bartlett Learning, Mississauga, Canada.
