Post-Rehab Fitness

By Lynda Huey, M.S.
Founder of Huey's Athletic Network, 1986
Founder of CompletePT, 1999

All Fitness Levels in Many Classes

- Students of all fitness levels come to many of our classes
  - All ages, weekend warriors, Olympic athletes, pregnant women.
- Add rehab patients and the range of abilities gets wider.
  - Low back pain, sore shoulders, sprained ankles, arthritic hips.
  - Prehab and post rehab fitness.

Specific Post-Rehab Fitness Classes

- You can create specific classes for Hips, Knees, Back, Ankle, Foot, Shoulder, or Neck.
  - Having only one or two body parts in a class simplifies the program.
  - Market classes internally to your students and to neighboring doctors and surgeons.

Protect the Injury Site

- Make a mental list of students' conditions, consider modifications.
- Protect the area of pain or injury while working out.
- If an exercise hurts a student, *don't do it!*
- Do less rather than more until you get to know each student. It might not hurt until tonight or tomorrow.

Basic Concepts

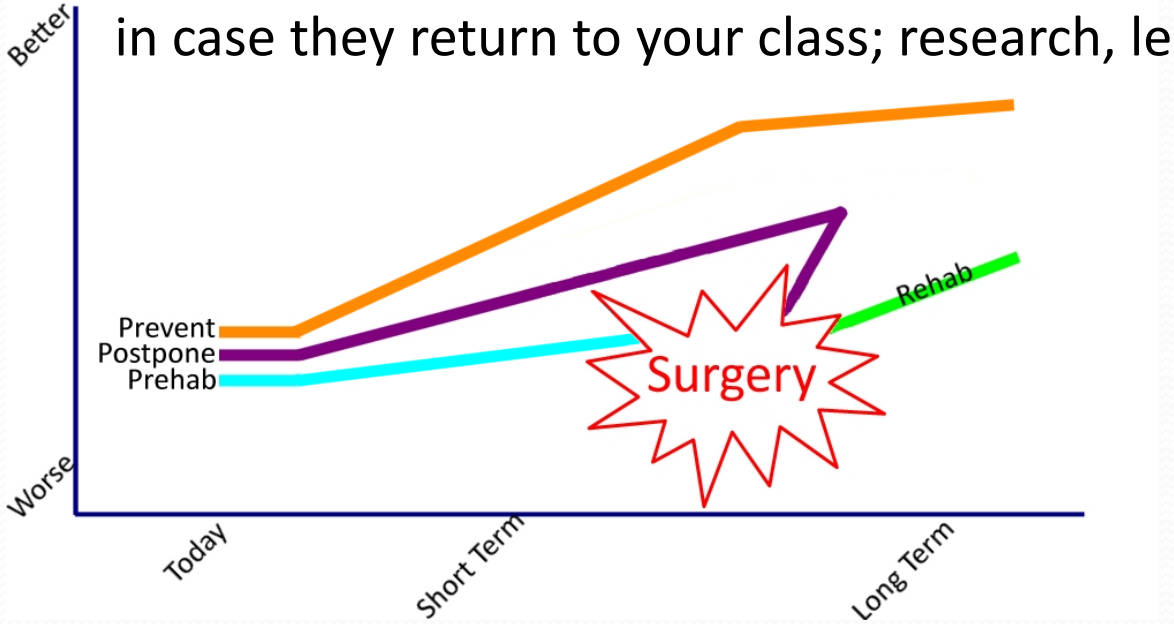
- Put a flotation belt on anyone with weight-bearing pain or injury, both shallow and deep water.
- Focus on low-impact or no-impact movements.
- The “Red Line” theory. Don’t cross the Red Line!
- Learn who is fragile and have them back off at first sign of pain.
- Learn who comes back feeling good and push them more each time.

Students Turn to YOU!

- Keep learning: read the latest fitness news and research studies, online research about any new terminology you hear from students.
- Listen to Meet the Doctors podcast on iTunes, Spotify, etc.
- Look up any words you don't know. Follow where that leads.
- Learn the basics about most common injuries and surgeries.
- Find a mentor: MD, DC, PT, ATC, or other.

Seeking Prevention of Surgery in Your Classes

- Many students are considering surgery.
- Start with the expectation you can help PREVENT surgery.
- If pain diminishes and ROM returns, heading toward prevention.
- 2-3 months later, little improvement, probably heading toward prehab; get strong to face the rigors of surgery.
- Should rehab with physical therapist after surgery, but be prepared in case they return to your class; research, learn more

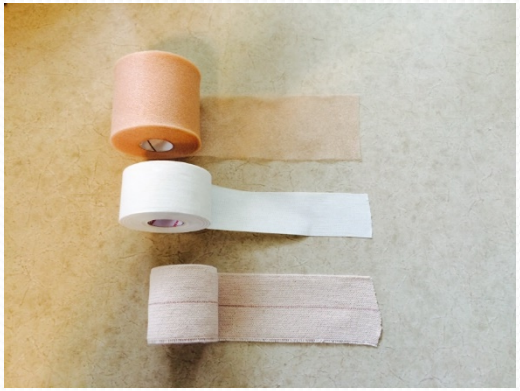


Cautions for Specific Body Parts

- Ankles
- Knees
- Hamstrings
- Hips
- Backs
- Shoulders

Ankles

- Learn to tape ankles or find someone who can.
  - White tape to immobilize first few weeks.
  - Switch to Elasticon tape for ROM.
- Cautious with Body Swing, Curl and Stretch.
- Go slowly at first on kicking exercises.

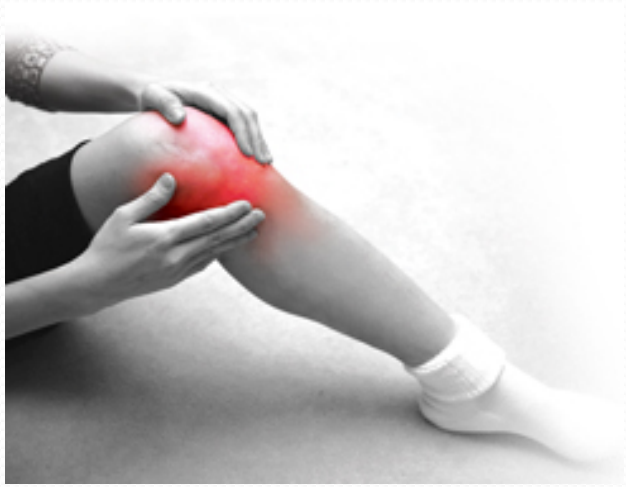


Knees

- Learn which movements cause pain for which students.
- Avoid twisting or pivoting movements.
- Cautiously try Curl and Stretch, then Body Swing.
- Use shallow, not deep-water running if there's patellofemoral pain or a tracking problem.
- Use a tether for Quad/Hip Flexor Stretch if good posture not possible.

Most Common Knee Conditions

- Meniscus tears – stabbing pain along the joint line, remove impact.
- Osteoarthritis (OA) – loss of articular cartilage; risk factors are obesity and family history; usual reason for total knee replacement. Google 4 stages.
- Ligament injuries – MCL heals without surgery, the LCL, ACL, and PCL usually need surgical repair for a stable knee.
- Patella tracking problems.
- Baker cyst – 15% have this cyst at back of knee. If swollen, indicator of damage elsewhere in the knee; don't remove, it will grow back.



Research Recommends Against Surgery

- Finnish study: knee arthroscopy may help no more than a fake operation. *NEJM*, 2013.
- Two studies show increased risk of knee OA following meniscus and ACL surgeries, *Orthopedics This Week*, 2014.
- Study shows osteonecrosis of femoral chondyle in 4% of those having knee arthroscopy in *Sports Medicine Arthroscopy Review*, 2016. 750,000/year in the U.S. = 30,000!
- *British Medical Journal,* 2017 conclusions:
  - "We make a strong recommendation against the use of arthroscopy in nearly all patients with degenerative knee disease and meniscus tears; further research is unlikely to alter this recommendation."

RAPID RECOMMENDATIONS

OPEN ACCESS

Arthroscopic surgery for degenerative knee arthritis and meniscal tears: a clinical practice guideline

Reed A C Siemieniuk,[1 2] Ian A Harris,[3 4] Thomas Agoritsas,[1 5] Rudolf W Poolman,[6] Romina Brignardello-Petersen,[1 7] Stijn Van de Velde,[8] Rachelle Buchbinder,[9 10] Martin Englund,[11] Lyubov Lytvyn,[12] Casey Quinlan,[13] Lise Helsingen,[14] Gunnar Knutsen,[15] Nina Rydland Olsen,[16] Helen Macdonald,[17] Louise Hailey,[18] Hazel M Wilson,[19] Anne Lydiatt,[20] Annette Kristiansen[21 22]

Favours arthroscopic surgery

Favours conservative management

Strong Weak Weak Strong

We recommend against arthroscopic knee surgery in patients with degenerative knee disease

What is the role of arthroscopic surgery in degenerative knee disease? An expert panel produced these recommendations based on a linked systematic review triggered by a randomised trial published in The BMJ in June 2016, which found that, among patients with a degenerative medial meniscus tear, knee arthroscopy was no better than exercise therapy. The panel make a strong recommendation against arthroscopy for degenerative knee disease. Box 1 shows all of the articles and evidence linked in this Rapid Recommendation package. The infographic provides an overview of the absolute benefits and harms of arthroscopy in standard GRADE format. Table 2 below shows any evidence that has emerged since the publication of this article.

Current practice

Approximately 7.5% of people older than 50 years experience knee pain from degenerative knee disease (box 2).[1 2] Management options include watchful waiting, weight loss if overweight, a variety of interventions led by physical therapists, exercise, oral or topical pain medications such as non-steroidal anti-inflammatory drugs, intra-articular corticosteroid and other injections, arthroscopic knee surgery, and knee replacement or osteotomy. The preferred combination or sequence of these options is not clear and probably varies between patients.

Knee replacement is the only definitive therapy, but it is reserved for patients with severe disease after non-operative management has been unsuccessful.[3] Some believe that arthroscopic debridement, including washout of intra-articular debris, with or without arthroscopic partial meniscectomy to remove damaged meniscus, may improve pain and function.

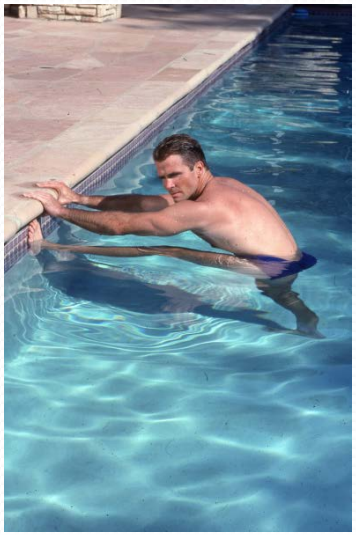
Current guidelines generally discourage arthroscopy for patients with clear radiographic evidence of osteoarthritis alone, but several support or do not make clear statements regarding arthroscopic surgery in other common groups of patients (table 1).

WHAT YOU NEED TO KNOW

- We make a strong recommendation against the use of arthroscopy in nearly all patients with degenerative knee disease, based on linked systematic reviews; further research is unlikely to alter this recommendation
- This recommendation applies to patients with or without imaging evidence of osteoarthritis, mechanical symptoms, or sudden symptom onset
- Healthcare administrators and funders may use the number of arthroscopies performed in patients with degenerative knee disease as an indicator of quality care.
- Knee arthroscopy is the most common orthopaedic procedure in countries with available data
- This Rapid Recommendation package was triggered by a randomised controlled trial published in The BMJ in June 2016 which found that, among patients with a degenerative medial meniscus tear, knee arthroscopy was no better than exercise therapy

Hamstrings

- No stretching during acute phase.
- Keep knee bent not to tug on hamstring.
- Easy to reinjure hamstring when working too hard.
- Ease into every movement slowly – can be surprised which exercises cause pain or not.

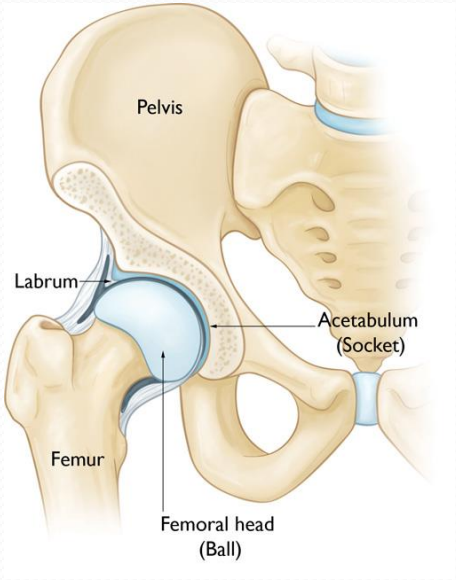


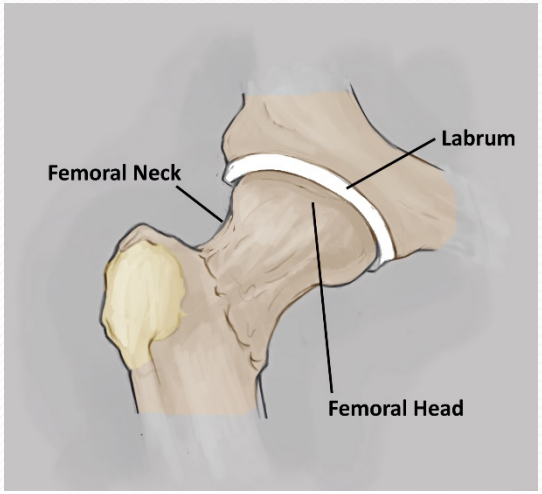
Hips

- Stay in pain-free ROM.
- Work on gluteal strengthening.
- Start Power Walk slowly to avoid hip flexor strain.

Most Common Hip Conditions

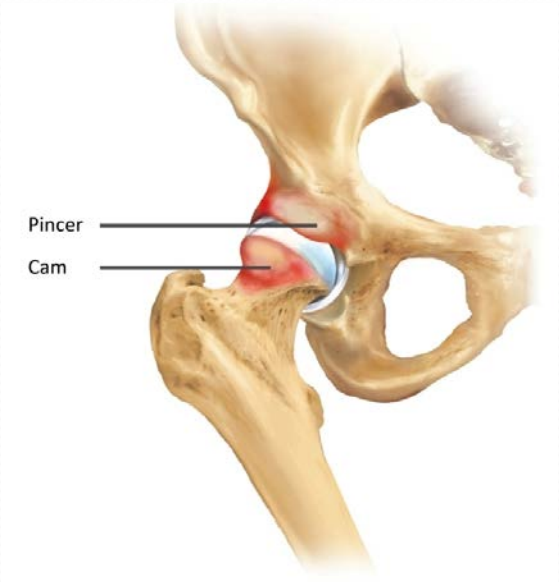
- Osteoarthritis (OA) – deterioration of articular cartilage, most common cause of hip pain and dysfunction.
- Labral tears – damage to fibrocartilage around rim of acetabulum. Can become frayed, torn, or ossified. Crucial to keep labrum:
  - Seals in joint fluid, keeps negative pressure inside joint, nourishes cartilage.
  - Helps create stability in the joint.
  - **Without labrum, hip joint starts to deteriorate.**





Femoroacetabular Impingement

- Femoroacetabular Impingement (FAI) – bony abnormality impinges on labrum and damages it.
- Torn Labrum can be repaired arthroscopically and bony impingement trimmed out.
- Protect the labral repair: **no deep squats, lunges, ROM**.



FAI, pincer and cam combined

After Hip Surgery

- Hip replacement surgery
  - Be aware of any movement precautions.
  - Limit extreme ranges of motion for comfort and no disruption of scar tissue formation.
- Arthroscopic surgery
  - Protect labral reconstruction, less flexion and abduction.
  - Focus on gluteal strength, to prevent hip flexor tendinitis.

Backs

- Generally avoid hyperextension.
- Find out if flexion or extension feels good for each student and choose their exercises based on that.
- Avoid twisting movements: Bent-Knee Twists, Straight-Leg Twists.
- Build strong abs and other core muscles.

Shoulders

- Flexion/abduction stretches, hand on deck, squat to resistance.
- Use noodles or hand buoys, pushing down for stability.
- Add resistance pieces for increased strength.
- Use hand buoys in DWIs until normal movement restored.

Pain as a Friend

- Review activities with your students – nurturing or abusive, delete abusive.
  - Abusive – running, ballet, martial arts, soccer, extreme ROM.
  - Nurturing – **pool**, bicycling, elliptical.
  - Treat pain as a friend teaching exact movement warnings.

Teaching Tips

- Learn students' names right away. Helps you give warnings.
- Start each exercise with warnings for specific students.
  - Get the exercise going.
  - Make sure those with warnings are safe.
  - Increase the exercise for more advanced students: faster, harder.
- Don't let students exercise with bad form – slow them down, correct the movement, back to speed.

Q and A

Time for your questions

Visit LyndaHuey.com/AEA for a copy of this PowerPoint. New low-cost subscription rate for course!