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The Center
for Physical Rehabilitation

ATC TIP

JUMPING & LANDING FOR HEALTHY KNEES

MANY ATHLETES EXPERIENCE KNEE PAIN, but often they're not sure what is causing it. There are a lot of causes and conditions to explore, but one of the most common conditions has to do with how the quadriceps muscle is working with the patella, especially for jumping athletes.

IMPROPER JUMP AND LANDING TECHNIQUE CAN LEAD TO A VARIETY OF INJURIES, but often we see chronic conditions arise such as patellofemoral syndrome, patellar tendinitis (Jumper's knee) and chondromalacia. Athletes can work to counteract these conditions by having their jumping and landing form assessed, and following a functional strength program that helps build and balance strength between all the major muscle groups.



GOOD JUMPING FORM INCLUDES THE FOLLOWING:

- Feet hip-width apart
- Priming the muscles for jumping with a quarter- to half-squat
- Using the upper extremities to add height and control to the jump
- Taking off from two feet

**It is worth noting that many sports, including volleyball and basketball, have specific moves/ techniques that require an athlete to take off of one foot (volleyball slide, basketball lay-up) and with these, the proper landing is even more important.*

GOOD LANDING FORM INCLUDES THE FOLLOWING:

- Landing on two feet, with weight distributed equally between them
- Landing softly/quietly
- Fluid bodily movement
- Absorbing the force of the landing by controlling body into a quarter- or half-squat, keeping the chest up and the butt down
- Keeping knees out over pinky toes

** When knees land in valgus consistently, a lot of additional stress is being put on the knees and can lead to injury - preventing the knees from passing vertically over the toes*

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