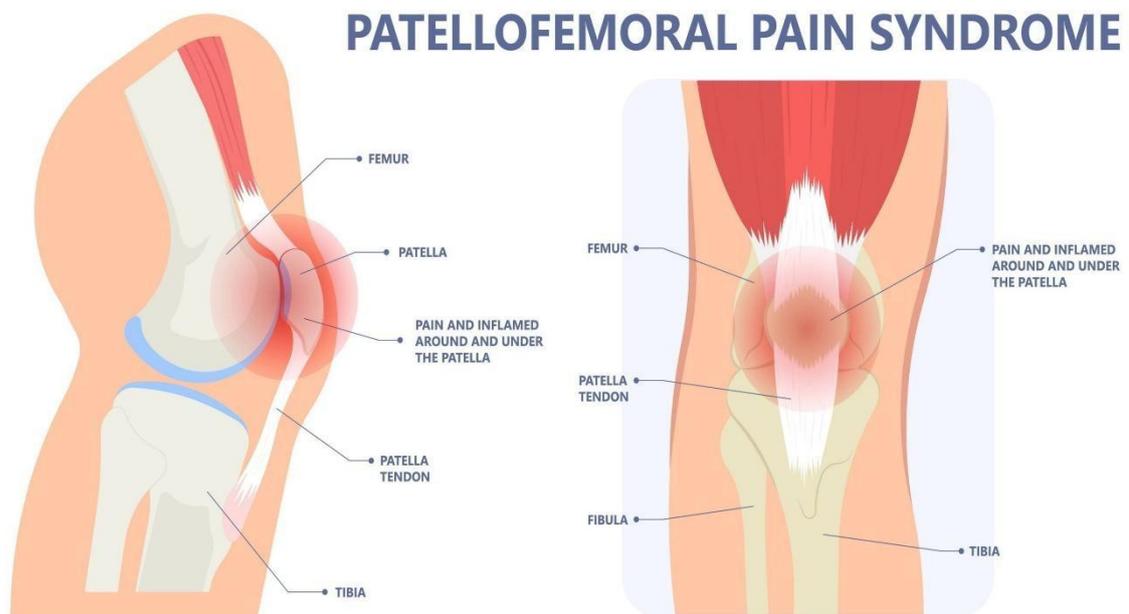


## Patellofemoral Pain Syndrome (Knee Pain in Children)



### What is Patellofemoral Pain Syndrome (PFPS)?

Patellofemoral Pain Syndrome, sometimes called “**runner’s knee**”, is a common cause of knee pain in children and adolescents. It occurs when the **kneecap (patella)** does not move smoothly in its groove at the front of the knee, causing irritation and discomfort.

It often affects **active children aged 10–15 years** and is usually linked to growth, activity, or muscle imbalance.

### Causes

PFPS can be caused by:

- **Muscle imbalance** around the thigh (quadriceps and hip muscles)

- **Overuse** from sports, running, or jumping
- **Biomechanical issues**, such as flat feet or misalignment of the knee
- **Rapid growth** during puberty

## Signs and Symptoms

Children with PFPS may experience:

- Pain **around or behind the kneecap**
- 
- Pain that **worsens with running, jumping, climbing stairs, or sitting for long periods**
  - Occasional **knee swelling**
  - Feeling of the knee **“giving way”** or clicking

## Diagnosis

PFPS is diagnosed based on:

- **Medical history:** Activity level, onset of symptoms, and growth patterns
  - **Physical examination:** Checking knee alignment, muscle strength, and flexibility
- 
- **Imaging tests (rarely needed):** X-rays or MRI to rule out other causes

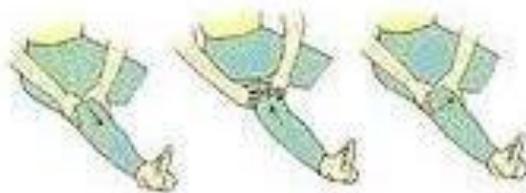
## Treatment

PFPS usually improves with non-surgical treatment:

1. **Rest and Activity Modification:**
    - Reduce high-impact activities temporarily
    - Avoid prolonged sitting with bent knees if painful
- 
2. **Physiotherapy:**
    - Exercises to strengthen **quadriceps, hip, and core muscles**
    - Stretching tight muscles (hamstrings, calves, iliotibial band)
    - Guidance on **correct movement and sports technique**
  3. **Pain Relief:**
    - Paracetamol or ibuprofen as advised by a healthcare professional
  4. **Footwear and Orthotics (if needed):**
    - Supportive shoes or insoles for children with flat feet or misalignment



**Hamstring stretch**



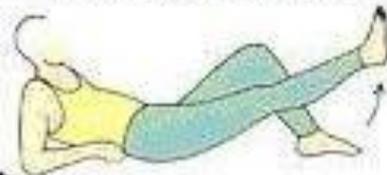
**Patellar mobility**



**Quadriceps stretch**



**Quadriceps isometrics**



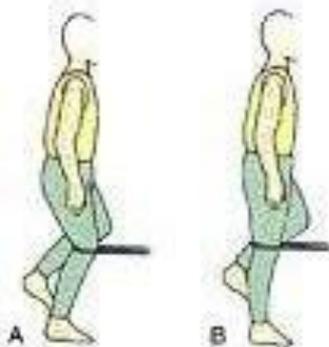
**Straight leg raise**



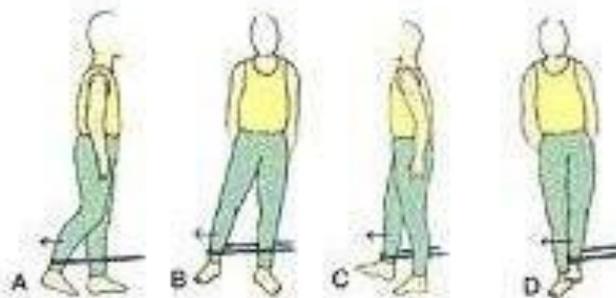
**Step-up**



**Wall squat with ball**



**Resisted knee extension**



**Knee stabilization**

## Home Care Tips

- Encourage **regular physiotherapy exercises**
- Use **ice packs** for pain after activity (10–15 minutes)
- Avoid activities that **trigger pain** until the knee improves
- Maintain a **healthy weight** to reduce stress on the knee

## When to Seek Medical Advice

Contact a healthcare provider if your child:

- 
- Has severe or persistent knee pain
  - Experiences swelling, redness, or warmth around the knee
  - Has difficulty walking or knee instability
  - Shows no improvement after **4–6 weeks of conservative treatment**

## Prognosis

Most children with PFPS recover fully with physiotherapy and activity modification. Symptoms may persist longer if treatment is delayed or underlying biomechanical issues are not addressed.

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## Further Information:

- [NHS – Knee Pain in Children](#)
  - Physiotherapy Advice for Children
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