Knee Braces are commonly used for ligament injuries, cartilage tears, patellar pain syndrome, iliotibial band syndrome

Treating Knee injuries
-severe knee injuries require surgery
-minor injuries can be safely self-treated with RICE (rest, ice, compression, elevation)

Categories of knee braces and supports
- prophylactic braces prevent injury or reduce its severity, particularly in athletes prone to MCL injury
- functional braces provide stability for unstable knees
- patellofemoral braces keep patella in place and reduce knee pain (sleeves with kneehole)
- rehabilitative braces prevent knee reinjury following surgery
- IT band strap applies pressure to iliotibial band and prevents knee inflammation
- patellar cuff applies pressure on patellar tendon, changes point of greatest tension and relieves pain

Most OTC knee supports will be patellofemoral or nonspecific functional braces

Price ranges:
- Patellar cuffs: $10 to $40
- Patellofemoral: $46 to $100
- Prophylactic: $44 to $125
- Rehabilitative: $200 to $460
- Functional: $280 to $1250

In general, cost is great for custom braces.

Insurance coverage:
- If patient has doctor’s prescription, insurance may cover up to 70-100% of the knee brace
- Medicare may reimburse some (or all) of the cost on some braces; will require a written prescription of medical necessity from physician.

The pharmacist’s role:
Recommend that your patient talk to a physician before using a knee brace.

When putting on a brace:
- Make sure the hinges are at the level where the knee bends
- Make sure all Velcro, straps, tapes, hooks and loops are appropriately placed
- The condition of the brace should be checked regularly
- Braces that are worn out should be replaced
- Hand wash the brace with warm soap and water
- Metal parts should be properly covered to protect others from injury

Cast covers: Functional AND decorative
- Plaster casts are used sometimes and are vulnerable to water damage
- Moisture under cast can cause fungal or bacterial growth, leading to itch and odor
- Plastic bags and rubber bands are cheap but ineffective and uncomfortable

For all water-resistant cast covers:
- None can be worn for extended periods
- None are suitable for vascularity compromised patients
- Consult provider or manufacturer about using lubricants
- All are a pain to put on
- Most are better than garbage bags

Types of water-resistant cast covers
Plastic covers with rubber seals
- $17-23
- widely available
- must be applied carefully to avoid cutting off circulation
- a deluxe plastic bag with deluxe rubber band
- cannot be submerged: no swimming!

Thermoplastic cast and wound covers
- $22-24
- reusable for 3-4 weeks
- shrinkwrap area
- can be used for swimming
- do not confuse wound covers with cast covers; fit by limb/cast circumference

Slip-on polyurethane cast covers
- $12-24
- sized by above-cast limb circumference
- can be used for swimming, but may be awkward

Diaphragm-seal cast covers
- ~$25
- shaped polyvinyl bag with nonlatex diaphragm ring
- sized by length of cast
- last 6-8 weeks, a common duration for casts

Vacuum-sealed latex cast covers
- $30-40
- sized by cast length and limb circumference above cast
- can be used for swimming
- non-skid textured sole

CastBlast: canned air with talc: absorbs moisture, decreases odor and scratches itches!
**Sports Medicine II: Below Waist**
Julia Coolman, Amy Thomas, Kelli Watari, Chris Yokum

**Thigh and Calf Supports**
- Used for Compression step in RICE
- Can be used for grade I muscle strains

**Thigh sleeves/wraps:**
- For hamstring, quadriceps injuries and strains
- Supports and compresses thigh, neoprene retains heat to promote healing
- $10-45

**Calf sleeves/wraps**
- For calf muscle strains (gastrocnemius), shin splints
- Supports and compresses calves, applies pressure to soft tissue, helping to prevent additional damage (shin splints)
- neoprene sleeves retain heat to promote healing
- $10-40

Refer patient to physician if:
- patient cannot stand on injured leg
- leg has visible deformity
- popping noise associated with injury
- visible bruising
- severe swelling
- noticeable loss of strength
- if pain persists or worsens

**Ankle Braces and Wraps**

- Ankle Sprain
- Ankle Instability
- Achilles Tendonitis
- Hemophilia
- Post-Op
- Fracture

**Ankle Sprains**
Three degrees of severity
Mild < Moderate < Severe which correspond with Stretched < Partially Torn < Completely Torn

**Elastic Braces:** Excellent comfort and breathability to reduce moisture accumulation and skin irritation. Can combine with plastic inserts or plastic exoskeleton for more support.

**Neoprene Braces:** Can stretch in four directions for more comfort. Excellent heat retention – good for cold weather sports.

**Hinged Braces:** Superior stability for more severe or acute injuries. Can be combined with elastic or neoprene braces

**Ankle Stirrups:** Maximum support for inversion and eversion. Foot free to move up and down. Foam, liquid or air linings add comfort.

**Walking Boots:** Cast replacement for sprains and some fractures. Enhance mobility

**Night Splints:** For Plantar Fasciitis or Achilles Tendon injury or surgery. Keep tendons from tightening during the night.

**Price Range**
$ 20 – 300

**Insurance Coverage**
Usually covered by insurance companies and Medicare under durable medical equipment. Need a prescription.