Mobility and Injury Prevention Strategies in FOP

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Objectives
- Describe common mobility issues and limitations in persons with FOP
- Discuss general guidelines to safe exercise in persons with FOP
- Discuss use of assistive devices and mobility aids for persons with FOP

Importance of physical activity

- Improves lung function
- Strengthens bones and muscles
- Improves mental health and mood
- Promotes better sleep

Common mobility issues in FOP
- Variation in expression of disorder
- Soft tissue ossification
- Cranial-to-caudal, proximal-to-distal, axial-to-appendicular
- Initial manifestations mean age 5 y/o (Cohen, et al)
- Trauma can be a potent trigger
- Unpredictable or asymmetrical postures

General guidelines to safe exercise
- Active movements
- No aggressive stretching
- Within pain and movement tolerance
- Compensatory vs. restorative strategies

Aquatic therapy
- Use of water for wellness and prevention
- Effects achieved through physical properties of water
Effects of water on body tissue
- Assist in supporting body weight
- Strengthening
- ↑ muscular blood flow
- Slowed bone density loss
- Minimize stress and compression on joints and muscles
- Psychological effects
- ↓ fall risk

Hydrostatic pressure
- Assists with circulation and reduces swelling
- Increase the work of breathing
  - Strengthen mms. of inspiration
  - ↓ lung volume

Buoyancy
- Can assist or resist movement

Things to consider
- Traditional swimming pools vs. self-contained exercise pools
- Housed within medical facilities or clinics?
- Depth of pool
- Group activities vs. individual use
- Access via ramps, stairs, ladders, or mechanical lifts
- Use of other exercise or pool tools
Balance, you say?

- Important for many activities of daily living
- Helps with fall prevention
- Safety first!

Components of balance

Vision → Vestibular (Inner Ear) → Proprioception = BALANCE

Things at home that can help with balance

Importance of play

- Important for brain development
- Contributes to physical, cognitive, and emotional well-being
- No set rule for participation

Use of assistive devices

- Helps with balance
- Minimizes energy expenditure
- Community use vs. home use
- Watch out for areas of increased stress

Some balance exercises to try

http://www.hep2go.com
Use of orthotics
- Insoles or custom build-ups
- Improved stability
- Greater pressure equalization through the foot

New onset pain that is significant
Asymmetry causing increase in loss of balance
No one-size-fits-all: art vs. science
100% correction might cause its own issues
Needs can change over time

Use of adaptive equipment
- Dressing
  - Pullovers vs. button downs
  - Sock donners
  - No-tie shoelaces
- Toileting
  - Elevated toilet seats
  - Grab bars
  - Long handled wiping aids
  - Bidets
Use of adaptive equipment

- **Bathing and grooming**
  - Roll-in showers
  - Tub benches, shower chairs
  - Long-handled sponges
  - Hand held shower
  - Long-handled combs
  - Electric toothbrushes/ waterpiks

- **Feeding/ meal prep**
  - Elevated platform or stool
  - Long handled or curved eating utensils
  - “nosey” cups
  - Dycem
  - Lazy Susans

Equipment resources

- [https://www.ncmedical.com/item_1434.html](https://www.ncmedical.com/item_1434.html)
- [http://www.medline.com/category/Therapy-Rehabilitation/cat350042](http://www.medline.com/category/Therapy-Rehabilitation/cat350042)
- [https://www.performancehealth.com/](https://www.performancehealth.com/)

Home modifications

- **Lighting**
- **Tripping hazards – rugs, electrical cords**
- **Broken steps**
- **Slippery floors**
- **“smart” homes**

Questions?

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References