



Occupational Therapy and Parkinson's Disease

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Objectives

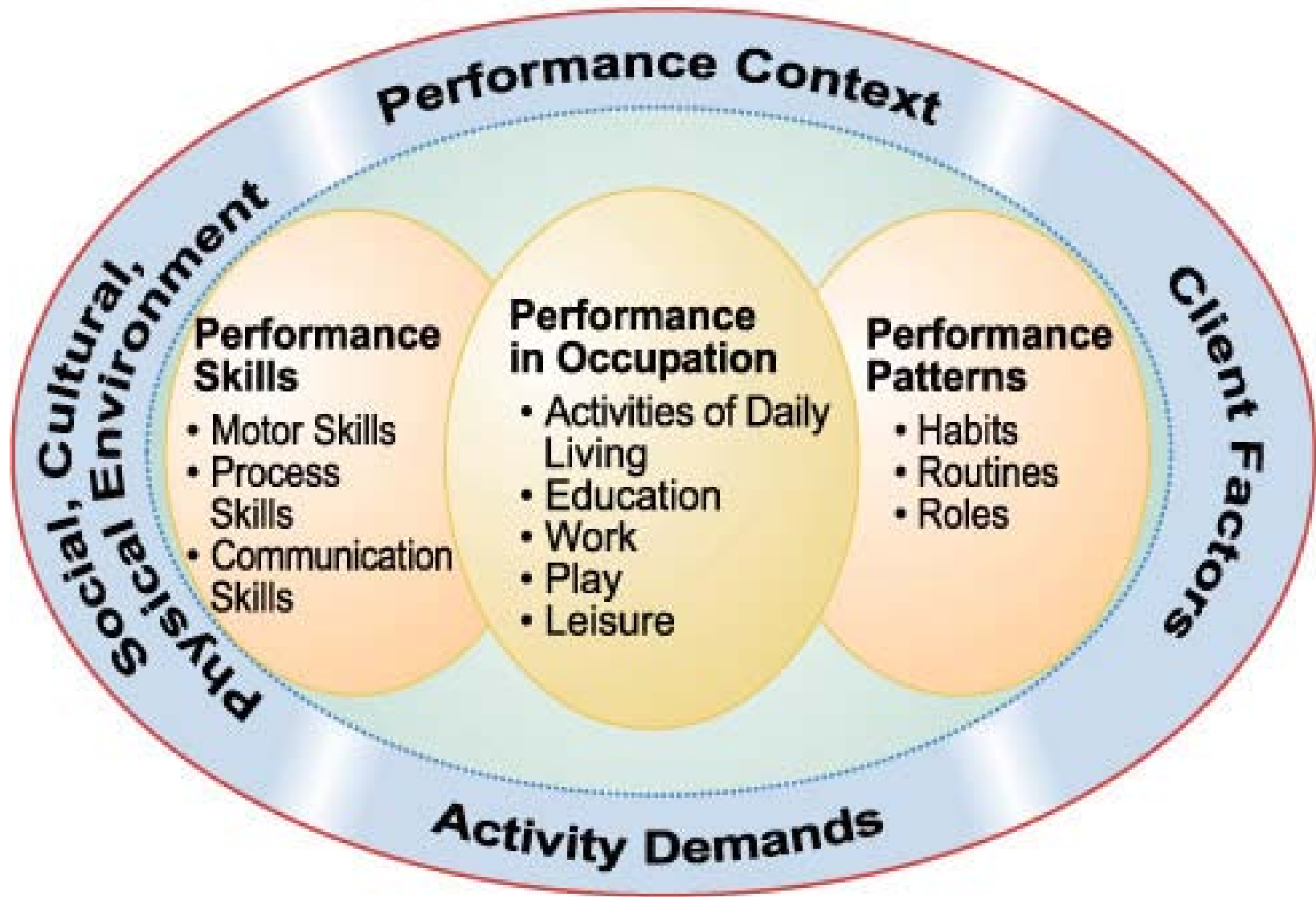


- Define Occupational Therapy (OT)
- Domains of OT
- Hoehn and Yahr Staging of Parkinson's Disease (PD)
- Role of OT in the stages of PD

What is Occupational Therapy?



- The use of treatments to develop, recover, or maintain the daily living and work skills of people with a physical, mental or developmental condition.
- A client-centered practice that places a premium on progress towards the client's goals.
- Focus on adapting the environment, modifying the task, teaching the skill, and educating the client/family in order to increase participation in and performance of daily activities, particularly those that are meaningful to the client.



Hoehn and Yahr Staging of Parkinson's Disease



Stage One

Symptoms mild

Usually presents with tremor of one limb

Stage Two

Symptoms are bilateral

Posture and gait affected

Stage Three

Significant slowing of body movements

Early impairment of equilibrium while walking or standing

Stage Four

Rigidity and bradykinesia

Tremor may be less than earlier stages

Stage Five

Cachectic stage

Requires constant nursing care

Stage One

- Home Safety
- Resources
- Exercise



Home Safety

- Bathroom
- Bedroom
- Kitchen
- Living Areas



Home Safety: Bathroom

- Nightlights
- Grab bars
- Non-skid mats
- Patch leaks
- Wipe up water immediately
- Positioning items in the shower



Home Safety: Bedroom

- Lamps
- Store eye glasses within reach of the bed
- Cords are a tripping hazard
- Remove clutter from walkways
- Portable commode



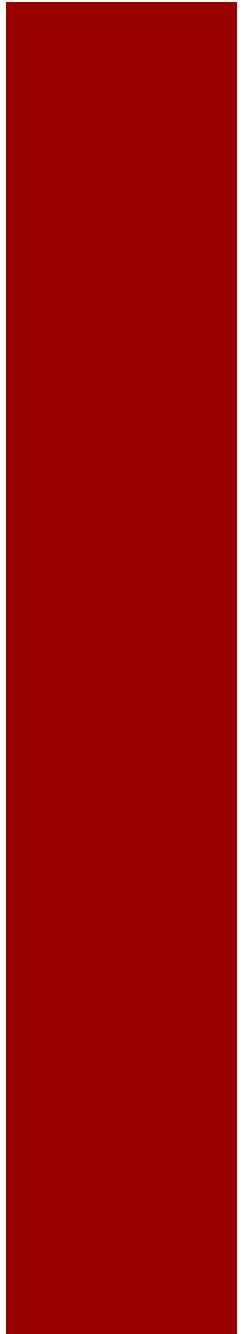
Home Safety: Kitchen



- Throw rugs
- If possible, rearrange cupboards and drawers
- Sturdy step stool
- Avoid using a chair as a step stool
- Sweep often and wipe up liquid

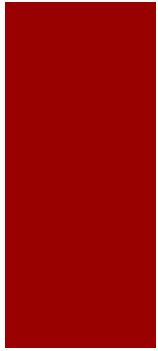
Home Safety: Living Areas

- Flat, sturdy walkway
- Throw rugs
- Higher chairs and armrests
- Phones
- Straight path, clear of furniture
- Longer cords for ceiling fans and lights



Resources: Home Modifications

- Chicago Mayor's Office for People with Disabilities
 - (312) 744-7054
 - <http://www.cityofchicago.org/city/en/depts/mopd.html>
- <http://lifecenter.ric.org/>
 - Search – Home Modifications
 - Click on – Home modifications and funding options
- Illinois State Division of Rehabilitation Services:
Home Accessibility Modifications (800) 252-4382
- Home Repairs for Accessible and Independent Living:
Chicago Department of Housing (312) 744-5000
- Access Living – Center for Independent Living – Chicago (312) 253-7000
- Progress Center – Center for Independent Living
Forest Park, IL (708) 209-1500
- Council on Disability Rights Home Modification Resources
www.disabilityrights.org



Resources: Financial Assistance for Home Modifications

- City of Chicago
 - Small Accessible Repairs for Seniors
 - Direct: 312.744.5000
- Illinois State Treasurer's Office
 - Direct: 312-814-1700
- Centers for Medicare and Medicaid Services (CMS)
 - 800-MEDICARE (633-4227)
 - Medicare does NOT cover home modifications
 - Medicaid programs vary by state.
- The Lawrence & Darlene Gilford Foundation
 - (847) 446-8718
- U. S. Department of Housing & Urban Development (HUD)
 - 312.353.5680
- Extended Home Living Services
 - www.ehls.com -> resources -> funding resources
- More information:
 - <http://homemobilitymodifications.com/financial-resources/>
 - <http://lifecenter.ric.org/index.php?tray=content&tid=top9&cid=687>

Resources: Lending Closets

- Lending closets lend durable medical equipment to individuals.
- **Northshore Lending Closets**
 - 708-444-8460
- **Elderwerks: Senior Care Consultants**
 - <http://www.elderwerks.com/fg/content/articles-and-guides/lending-closet-lists-of-providers-022caa4e-ff57-4797-9a85-846750490cb7-1.aspx>
- **Seniors in Action: Used equipment in the north and northwest suburbs**
 - 847.692.2509
 - <http://www.seniorsinaction.org/>

Exercise

- Random Practice Exercise
- Exercises to promote cardiopulmonary fitness



Give me a challenge!!

- Exercises that do NOT challenge motor planning
 - Riding a stationary bike
 - Weight lifting
 - Treadmill walking at a slow pace
 - Lap swimming
- Don't stop, just try to switch it up



Stage Two

- Activities of Daily Living (ADLs)
 - Toileting
 - Large Amplitude Exercises



ADLs

- Dressing

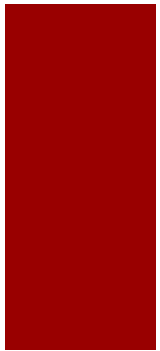
- Before dressing ---

- Allow plenty of time

- Stretch to warm up



- Functional mobility



Toileting

- Urinary Frequency and Urgency
 - Regular Schedule
 - Avoid caffeinated drinks
- Bladder control
 - Pads, shields, briefs
 - Plastic or washable pads for bed



- **Please consult your health care provider before trying any of these tips



Large Amplitude Exercises

Purpose:

1. To increase the amplitude and speed of movement in both arms and legs during walking and other everyday tasks
2. To reset perception of movement execution

Daily Exercise Program:

- Sustained movements
- Repetitive Movements
- Functional Movements

Evidence:

- Potential to improve trunk rotation
- Increase stride length
- Long term benefits
- Improved dual tasking



Seated Multidirectional Sustained Movements



REACH UP



- Begin in relaxed seated position
- Lift arms up and move legs out
- Hold position for 10 seconds
- Return to relaxed seated position
- Repeat 10 times

REACH DOWN



- Begin in relaxed seated position
- Move legs out and reach down
- Hold position for 10 seconds
- Return to relaxed seated position
- Repeat 10 times

Stage Three

- Safety during transfers
- Mobility Devices
 - Car Transfer
 - ADLs
 - Bathroom Equipment
- Toileting in the middle of the night
- Travel Pack



Safety during transfers

- What type of chair am I about to sit down on?



Safety during transfers:

Stand → Sit

- Get close
- Back up until you can FEEL the chair with BOTH legs
- Center and check
- Reach back with your hands



Safety during transfers: Sit → Stand

- SCOOT FORWARD
- Feet firmly on the ground, shoulder width apart, and a little back
- Look up with your eyes to keep your upper body from leaning too far forward
- Think 'Nose over toes'
- Stand with your legs NOT your arms





Mobility

- Physical Therapy
- Mobility Devices
 - ***See a physical therapist before purchasing any assistive devices
 - don'ts
 - do's
- Auditory cues





U-step walker with laser cue



In-Step Mobility
Products Corp.

1-800-558-7837

walkers@ustep.com
www.ustep.com

Car Transfer

Getting into the car

1. Back up
2. Both hands on solid surfaces
3. Don't hold onto the door
4. Sit down sit facing the outside – Not balancing on one leg
5. Move your body as a unit



Getting out of the car

1. Move your body as a unit
2. Feet firmly on the ground
3. Scoot forward
4. Both hands on two solid surfaces
5. Stand up

ADLs

■ Feeding

<https://www.liftlabsdesign.com/>



<http://www.imagiroom.com/>



■ Writing



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ADLs

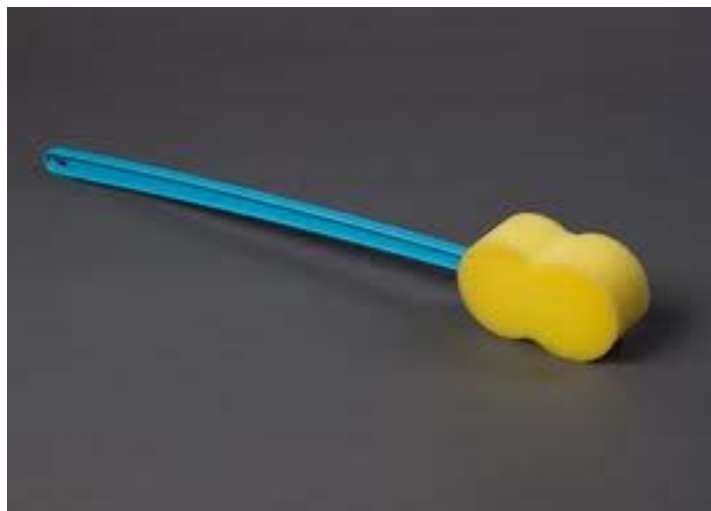
- Lower body dressing: Safety
 - Sit down
 - Arm chair
 - Avoid leaning over to feet
- Hygiene



Bathroom Equipment and Bathing



- Tub transfer bench
- Standard shower chair
- Long handled sponge
- Grab bars





Toileting in the middle of the night

- Auditory Cues
 - Imagery
- Direct, simple verbal cues
 - Urinals
 - Bed risers

Travel Time!

- Travel Pack
 - Contact the hotel
 - Transport wheelchair
 - Lightweight spoon
 - Exercise program
 - For men- urinal
 - Seat cushion



Stage Four

- Bathroom equipment
- Bed mobility
- Transfers



Bathroom Equipment



Toilet lift by Barry Phillips of
Phillips Lift System

▪ Website:

<http://www.toiletliftchair.com/>

▪ Email:

sales@phillipsliftsystems.com

▪ (765) 969-0274

Bed Mobility



Sit to stand transfers



Craftmatic ElectroLift Chair



Regain Your Independence



Stage 5

- Caregiver Education
- Passive Range of Motion
- Lift Equipment



Caregiver Education



- Proper Body Mechanics
 - Plan the move
 - Lift with your legs
 - Communicate and Coordinate
- Turning in Bed
- Moving a Person Up in Bed
- Bed Making
- Bathing in Bed
- Using a Bedpan
- One-Person Transfer from Bed to Chair
- Sliding Board Transfer
- Transfers in the Bathroom

Passive Range of Motion

Tips for Exercise: General Guidelines
Always check with nurse before beginning program

Allow sufficient time for each session so exercises can be carried out thoroughly

Do not move too fast

Helper's hand hold needs to be supportive to promote patient comfort. To protect patient skin, avoid grasping too tightly

Observe patient for signs of discomfort

Adjust height of bed to assure good body mechanics

SHOULDER FLEXION

Support arm, with one hand under the elbow and one hand at the wrist.

(B) Motion
Slowly raise arm over head, keeping the thumb pointed up, elbow straight. Return to starting position

CAUTION:
Do NOT complete this exercise with patients that have a new pacemaker or who have had an open chest surgery



ELBOW FLEXION



(A) Position
Helper: Support under straightened elbow. Place other hand under palm.

(B) Motion
Slowly bend elbow, bringing palm toward patient's shoulder. Return to starting position

ELBOW SUPINATION AND PRONATION

(A) Position
Helper: Bend patient's elbow to 90 degrees.

(B) Motion
Turn forearm so palm faces up. Then turn forearm so palms faces down



WRIST FLEXION

(A) Position
Helper: Stabilize forearm. Grasp palm with other hand.

(B) Motion
Bend wrist, moving hand in direction of palm. Return to starting position

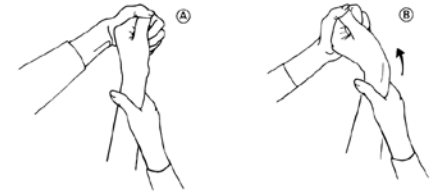
CAUTION: Do not push into wrist joint



WRIST EXTENSION

(A) Position
Helper: Support forearm. Hold hand gently fist.

(B) Motion
Bend wrist back. - Keep hand fist.



HIP AND KNEE FLEXION

(A) Position
Helper: Place one hand under the patient's knee. Cradle foot and ankle with other hand.

(B) Motion
Bend knee and hip, bringing foot toward buttock. Return to starting position

CAUTION: Do NOT complete for any patients with hip injury or hip surgery



HIP ABDUCTION

(A) Position
Helper: Place one hand under the patient's knee and the other hand under the patient's ankle, keeping the knee straight.

(B) Motion
Glide leg out to side, keeping toes pointed toward the ceiling. Stop when you sense tension in inner thigh.

CAUTION: Do NOT complete for any patients with hip injury or hip surgery



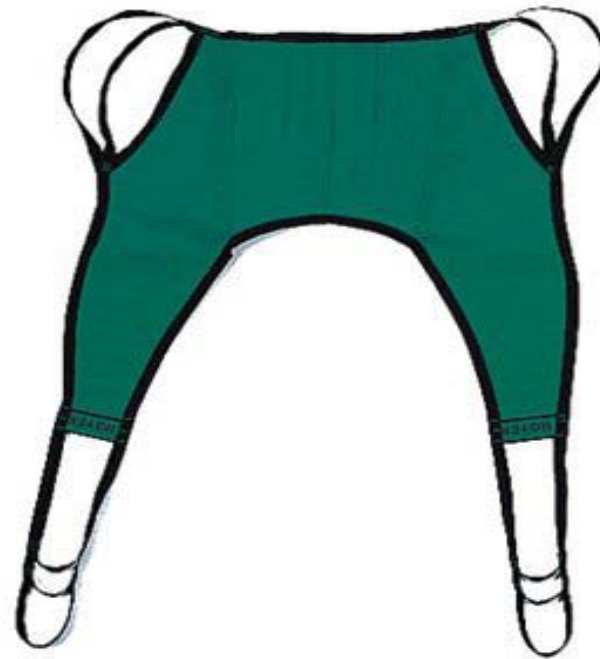
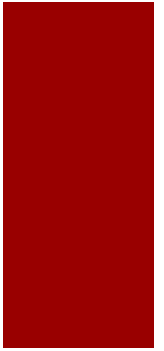
ANKLE DORSIFLEXION AND PLANTARFLEXION

(A) Position
Helper: Support leg so that ankle is free to move. Place other hand around the ball of the foot.

(B) Motion
Carefully move foot up toward shin, then point foot down toward the bed



Lift Equipment



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- Images:
- <http://www.pacificmobility.com/wp-content/uploads/2011/01/2041bedcane1.jpg> Grab bars for bed
- <http://www.livsolutions.com/images/superpole.gif> Floor to ceiling grab bar
- <http://www.1800wheelchair.com/siteimages/large/HoyerUsling.jpg> Hoyer lift sling
- http://www.norco-inc.com/~norcoinc/files/u4/BHM_Ceiling_Track_System_Bathroom.jpg Hoyer lift with ceiling track
- <http://t2.gstatic.com/images?q=tbn:ANd9GcQ-XT9gjDmwyBd42QGQ32SywQXn0BT24dlaGomNOF0p-gVEk4zGQw>
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- <http://ep.yimg.com/ay/makinglifeeasier/good-grips-utensil-strap-4.jpg>
- <http://www.1stseniorcare.com/images/Drive/Drive-ATC-lightweight-Transport-wheelchair-huge.jpg> (transport wheelchair)



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- Images cont:
- http://www.craftmatic.com/images/electrolift/chair_head.jpg Lift recliner
- <http://store.yourspecialneedssolutions.com/images/uploads/Lift%20Chairs/Uplift%20Seat%20Assist/Lift%20Chair-Portable-Uplift-Seat-Assist-.jpg> Portable seat lift
- <http://feeds.yourstorewizards.com/1931/images/250x1000/doknexpaof2.jpg> door knob extender
- <http://feeds.yourstorewizards.com/1931/images/250x1000/turknobop.jpg> turning knob extender
- http://img.webmd.com/dtmcms/live/webmd/consumer_assets/site_images/articles/health_tools/assistive_devices_oa_slideshow/webmd_photo_of_rubber_faucet_handle_converters.jpg (kitchen or bathroom sink grippers)
- <http://www.fatyogitoes.com/wp-content/uploads/2012/07/yoga-for-old-people.png> Flexibility picture
- <data:image/jpeg;base64,/9j/4AAQSkZJRgABAQAAAQABAAD/> non skid mat
- [http://i.ebayimg.com/00/s/MTUwMFgxNTAw/z/RwgAAOxyThVTaWCm/\\$_35.JPG](http://i.ebayimg.com/00/s/MTUwMFgxNTAw/z/RwgAAOxyThVTaWCm/$_35.JPG) shower caddy
- http://www.picturesof.net/_images_300/Cartoon_Man_Tripping_Over_an_Electrical_Cord_Royalty_Free_Clipart_Picture_100112-052670-735042.jpg Tripping over a cord
- <https://viequesdreamhousediary.files.wordpress.com/2011/05/kitchen-step-stool.jpg> step stool
- <data:image/jpeg;base64,/9j/4AAQSkZJRgABAQAAAQABAAD/> (elastic shoe laces)



References

- Images cont:
 - http://www.betterlifemobility.com/var/betterlifemobility/storage/images/media/images/walker5/44546-1-eng-US/walker_medium.jpg (metal frame rolling walker)
 - <data:image/jpeg;base64,/9j/> (Dressing while seated)
 - <http://www.google.com/imgres?imgurl=http%3A%2F> (Nosy cup)
 - <data:image/jpeg;base64,/9j/> (Tub transfer bench)
 - <data:image/jpeg;base64,/9j/> (Shower chair)
 - <data:image/jpeg;base64,/9j/> (long handled sponge)
 - <http://thumbs1.ebaystatic.com/d/l225/m/mBtsceVpShZNUzt2PiBRBg.jpg>
 - <http://www.4-medical-supplies.com/cache/1324424239000/resources/product/701/picture.jpg> (Toilet lift)
 - <http://www.accessibleconstruction.com/articles/graphics/handicap-accessible-bathroom.jpg> (After bathroom picture)
 - http://img.medicalexpo.com/images_me/photo-g/foam-hospital-bed-mattresses-89081-6135555.jpg (Hospital bed)
 - https://www.sleepstoreusa.com/assets/images/elevation_hospital_bed_adjustable_bed.jpg (Adjustable bed frame)

