PHYSICAL THERAPY AT THE EEU

Renee France, PT, DPT

Whitney Gregory, PT, DPT

AGENDA

- PHYSICAL THERAPY (PT) AT THE EEU
- MUSCLE TONE - Why it matters?
- SAFE HANDLING
- PLAYGROUND GUIDELINES
- SAFE LIFTING
- SUPPORTING CHILDREN – SKILLS PRACTICE

PHYSICAL THERAPY AT THE EEU

- We help children move, play, and participate in school routines.
- Our goal is to improve strength, coordination, balance, and mobility for safe, independent participation.
- Physical therapy ensures all children can access all learning opportunities, play with peers, and be included in school activities.

WHO WE SUPPORT

- Children who qualify for PT services (IEP/504) as well as the EEU community.
- Children have a wide range of diagnoses including Down syndrome, cerebral palsy, autism, rare genetic disorders, and many more.
- Range in age from birth to 5-6 years old (Early Support, PS, Kindergarten)
- Examples of skills we are working on include:
  - Pre/K: walking, running, stairs, jumping, ball skills (throwing, catching, kicking), balance, and coordination.
  - B-3: eating, breathing, postural control, sitting, rolling, crawling, walking.

PHYSICAL THERAPY: SCHOOL VERSUS MEDICAL MODEL

School PT	Medical PT
• Provided under the Individuals with Disabilities Act (IDEA) • Considered a related service, meaning it only occurs if it helps the child benefit from their education. • Goals are tied to school activities.	• Provided in hospitals, outpatient clinics and rehab centers. • Assists clients in optimizing function in any areas deemed important by the client. • Goals focus on impairments,

ROLE OF THE PT AT THE EEU

- **Motor Skill Development**
  Support gross motor skills like walking, running, climbing, hopping, and balance through play-based activities.
- **Positioning & Mobility**
  Ensure safe access to classrooms and playgrounds and support use of mobility equipment and safe transitions.
- **Participation in School Routines**
  Embed motor activities into daily routines (circle time, transitions, recess) and promote peer participation.

ROLE OF THE PT AT THE EEU

- **Adaptation of Environment & Equipment**

  Recommend and modify adaptive seating, mobility devices, and classroom layouts to enhance safety and accessibility.

- **Collaboration & Training**

  Work with teachers, paraprofessionals, OTs, SLPs, and families to carry over motor strategies and supports.

  Provide staff training for safe handling, equipment use and embedding motor activities.

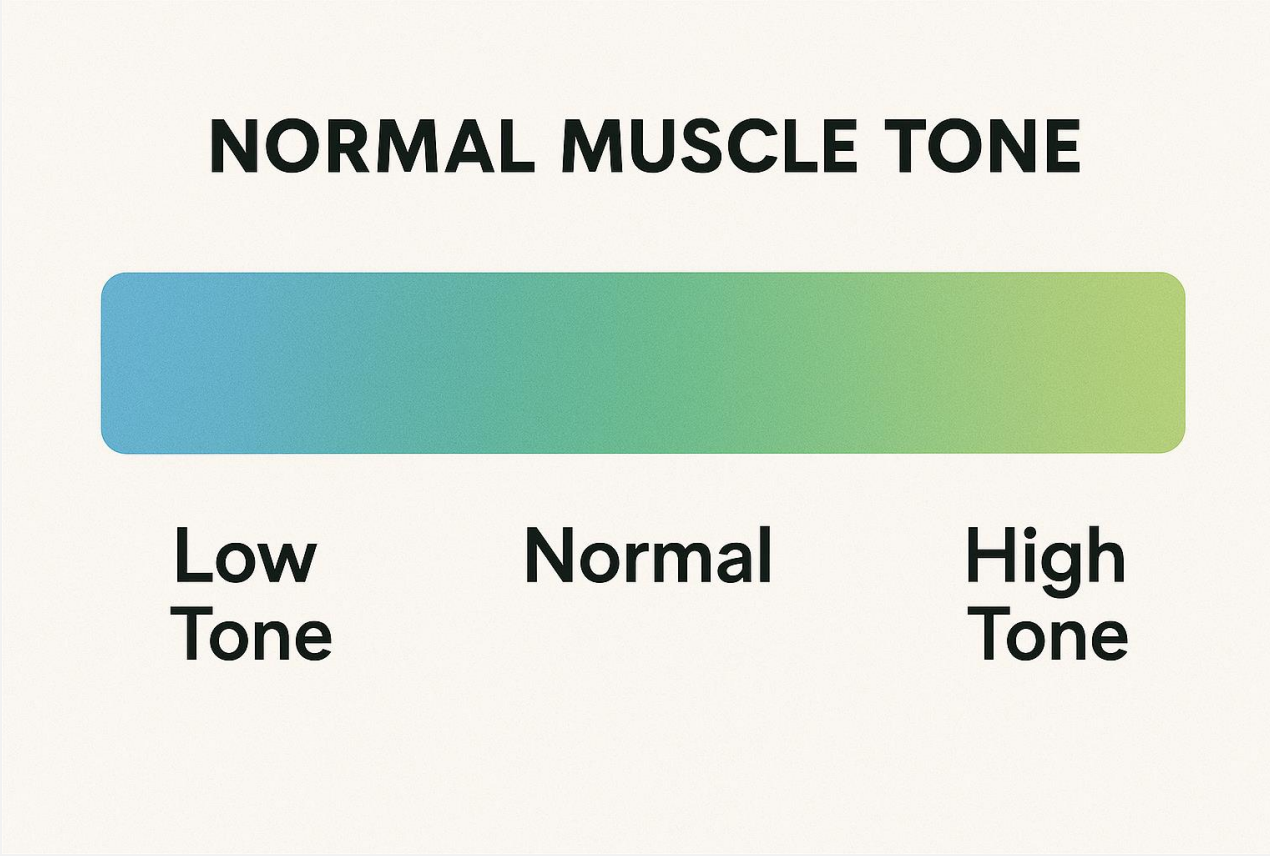
- **Promote Inclusion**

  Ensure all children can safely, independently, and actively participate in their school environment with their peers.

MUSCLE TONE

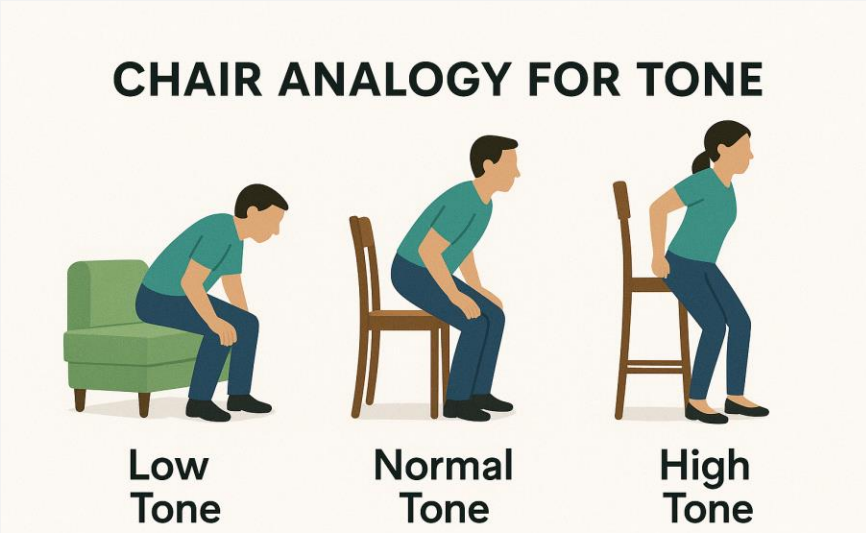
NORMAL MUSCLE TONE DEFINITION

- Refers to the resting state of your muscles and how quickly and easily they contract on demand.
- It provides enough stiffness to support posture and allow movement.
- Exists on a spectrum: low-normal to high-normal.



NORMAL MUSCLE TONE

- **Low-normal muscle tone**
  - Not as much tension in the muscles at rest, softer feel (squishable), requires much more energy to activate and use their muscles.
  - At risk for joint dislocation.
- **High-normal muscle tone**
  - Visible muscular definition, firmer feel, requires less energy to use and activate their muscles.
  - Movement comes easily and they have good endurance

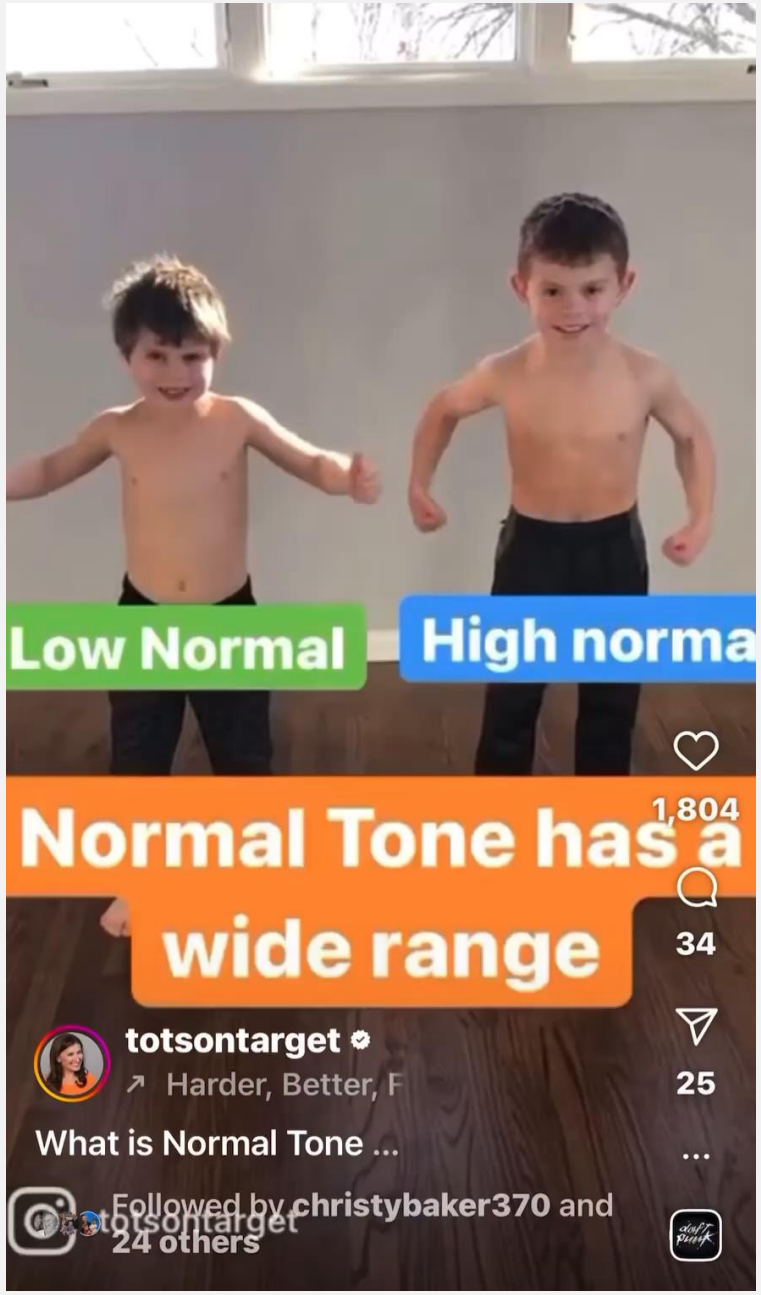


Normal tone is like getting up from a kitchen chair (↔ effort)
Low tone is like getting up from a low, deep couch (↑effort)
High tone is like getting up from a barstool (↓effort)

Overstretched hair tie (low tone): < tension, >effort
Mini hair tie (high tone): > tension at rest, < effort

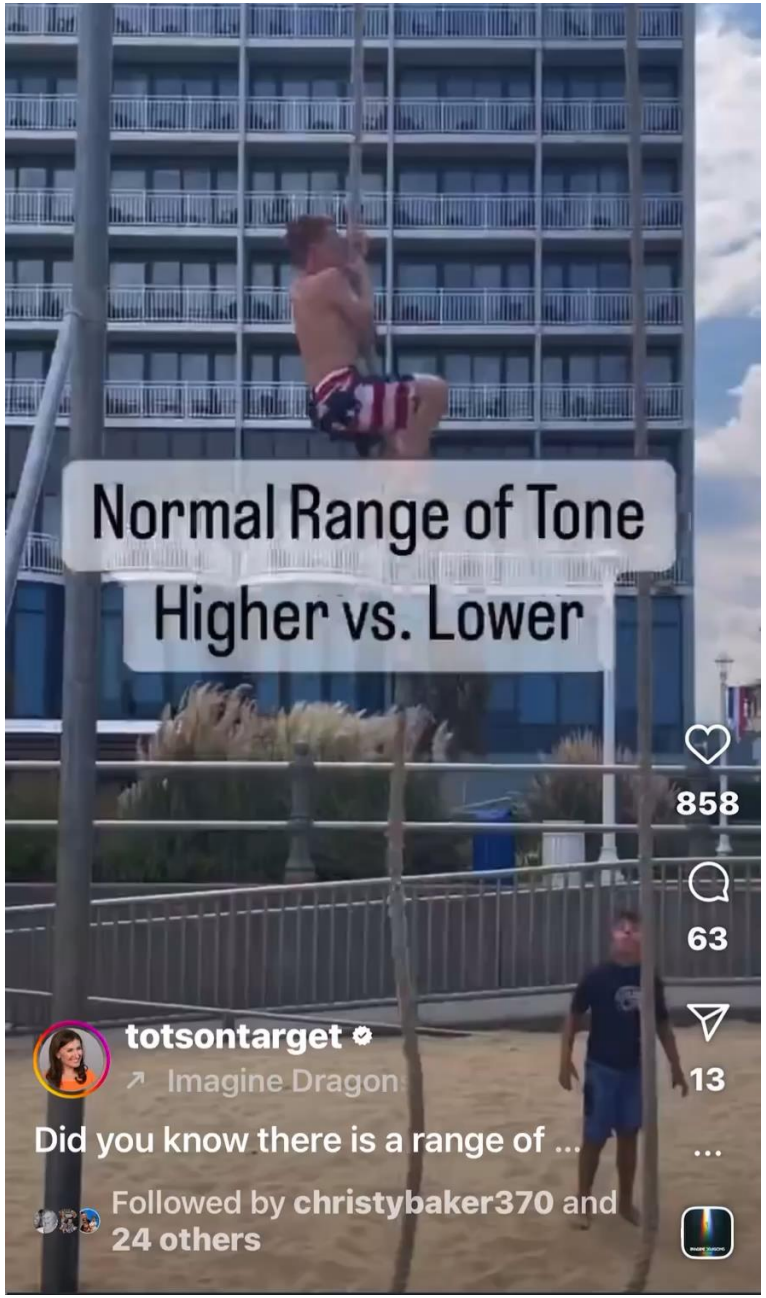
NORMAL MUSCLE TONE

LOW NORMAL VS. HIGH NORMAL



NORMAL MUSCLE TONE

LOW NORMAL VS. HIGH NORMAL



MUSCLE TONE BEYOND NORMAL

Means there is too little or too much tension in the muscles beyond the normal range.

Often linked to a neurological conditions (e.g., cerebral palsy) and some genetic conditions (e.g., Down syndrome).

LOW MUSCLE TONE (HYPOTONIA) CHARACTERISTICS

Floppiness beyond typical range	Hard to sustain postures, tires easily	Slouched or rounded sitting posture
Fidgeting and having difficulty sitting still	“W-sitting” or leaning on furniture for stability	Increased joint mobility (flexible)
Delayed gross motor skills (running, jumping, climbing)	Impaired balance and frequent falls	Tires quickly during active play or seated work

LOW MUSCLE TONE IN THE CLASSROOM

- Challenges with coloring, cutting, and buttoning
- Difficulty holding upright posture for long periods
- May avoid playground climbing or running games
- May need support with backpacks, lunch trays, dressing, etc.
- Benefits from adapted seating or movement breaks
- When posture is supported, fine motor tasks are easier

HIGH MUSCLE TONE (HYPERTONIA) CHARACTERISTICS

- Stiff or rigid muscles (body feels tight and resists movement)
- Decreased range of motion (difficulty bending or straightening joints fully)
- Jerky or awkward movements (motions may appear uncoordinated)
- Difficulty relaxing muscles
- Atypical postures (extended, flexed, or twisted)
- Challenges with balance and coordination
- Delayed or limited motor skills
- Pain, discomfort, or fatigue due to muscle stiffness

HIGH MUSCLE TONE IN THE CLASSROOM

- Stiff or rigid posture at desk or on floor
- Difficulty with smooth transitions between activities
- Challenges with handwriting, cutting, or using classroom tools
- May move slowly or with jerky motions
- Benefits from adapted seating/equipment, environmental supports and modifications

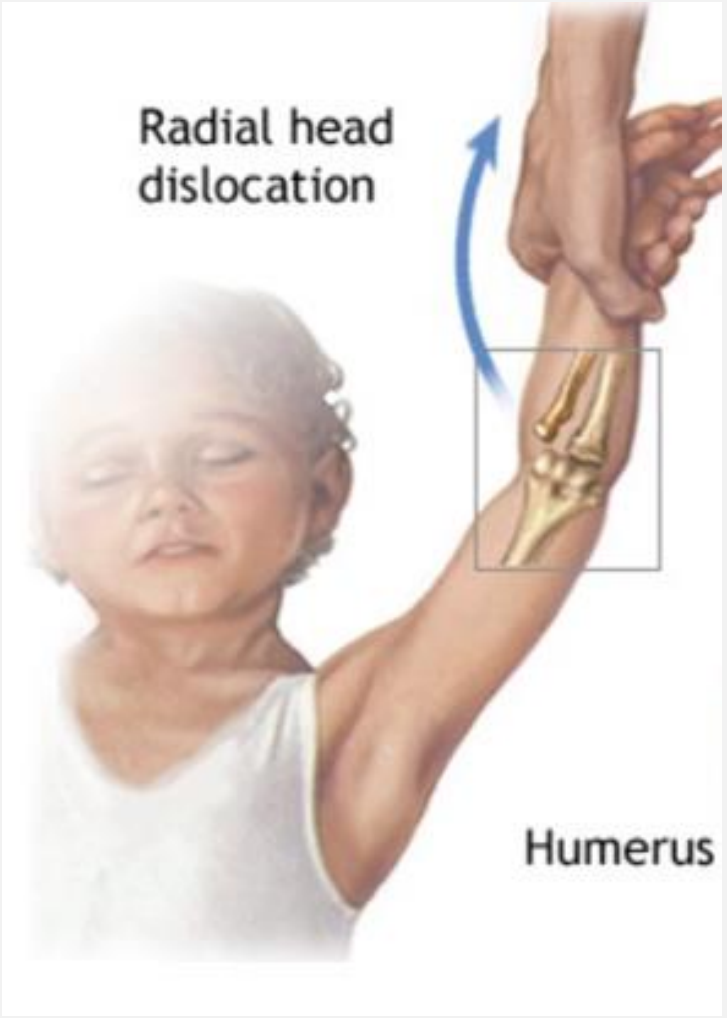
SAFE HANDLING SKILLS

WHY DO WE TEACH SAFE HANDLING TECHNIQUES?

- To help staff understand how to safely and effectively assist a student with mobility, positioning, transfers and equipment.
- To ensure consistency across settings.
- To reduce the risk of injury for both staff and students.
- To promote student independence so they can access their education.

SAFE HANDLING

- **Always use verbal and gestural prompts first.**
  Encourage independence. Physical support should not be your first step.
- **If physical support is needed, use the least amount possible.**
  Have the child assist in their own movement (e.g., "Can you push up with your hands?").
- **Always ask for permission and explain what you are doing.**
  (e.g., "I'm going to help you stand up now. Is that okay?")
- **Handle carefully and move slowly.**
  Sudden movements can startle a child or increase risk of injury



SAFE HANDLING

- **Never force movement or stretch beyond a child's range.**
  Children with low muscle tone have increased joint flexibility and may be prone to injury.
- **Never pull on a child's arms or legs.**
  Especially with low tone. They are at risk of dislocation.
  Instead, support closer to the child's center (e.g., around trunk or hips).
- **Use adaptive supports when needed.**
  Chairs with armrests, footrests, or wedges can help maintain posture safely.
- **Check equipment positioning.**
  Ensure walkers, standers, or adapted chairs are secure and adjusted for size.

SAFE HANDLING

- If you are holding a child's hand who may pull or fall, place your other hand on their trunk on the opposite side to increase control and avoid pulling on their arm.
- Always move a child by holding them at their pelvis or trunk.
- Always gather equipment first (i.e. stroller, car seat, chair, gym equipment, etc.) before moving a child. Don't get the equipment with a child in your arms.

CLIMBING WALLS AND PLAY STRUCTURE

- Make sure you have your hands on their torso or close to their hips.
- Always assist from below
- Do not pull on their arms or legs
- Use verbal cues before physical support
- Children should climb up and down, no jumping off the wall

STAIRS/MOUNDS

- Position your body **BEHIND** the child when going **UP** the stairs and in **FRONT** of the child when going **DOWN** the stairs.
- If a child falls, they will fall down the stairs, so you always want to be on the downside of the stair.
- Position your body BEHIND the child when going UP the mounds making sure you are in a stable and safe position (e.g., wide stance)
- Position your body in FRONT and slightly to the side of the child.

SWING

- Ensure children hold **on with both hands**
- **Teachers push the swing**, not children.
- Be aware of children's facial expressions.
- Teach children to get on the swing by holding the ropes with both hands and putting one knee on the seat at a time to climb up and over. You can help them by stabilizing the swing, so it doesn't move.
- Do not pick a child up and plop them on the seat unless that is the **only way** to safely get them on the swing.
- Limit number of kids on swing to 3-4.

SLIDE

- For safety reasons, children can only go down the slide with their **FEET FIRST.**
- **DO NOT LET THEM GO DOWN THE SLIDE HEAD-FIRST, or CLIMB UP THE SLIDE**
- **DO NOT allow children to RIDE ON YOUR LAP!** There is a high risk of leg fractures when children ride adult laps down slides.
- **ONLY LET ONE PERSON GO DOWN THE SLIDE AT A TIME**

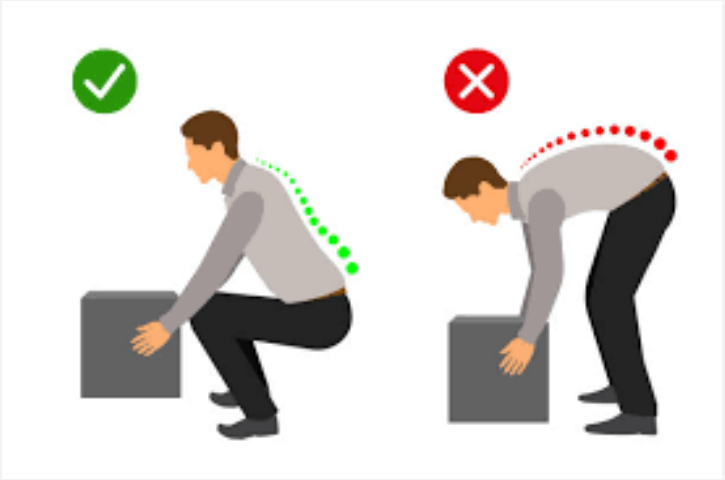
SAFE LIFTING

SAFE LIFTING - DO

- **Plan ahead** before lifting heavy objects or children.
- Make sure you have a **clear path.**
- **Test the load** to make sure it is not too heavy.
- **Ask for help** if a child/object is too heavy.
- **Lift with your legs** not your back.
- **Always squat** bending at your hips and knees.
- Kneeling and/or half-kneeling are ok.
- Keep a **wide base of support.**
- **Keep the child or object as close** to you as possible.
- **Lead with your feet** instead of twisting at your waist.
- **Push, don't pull.**

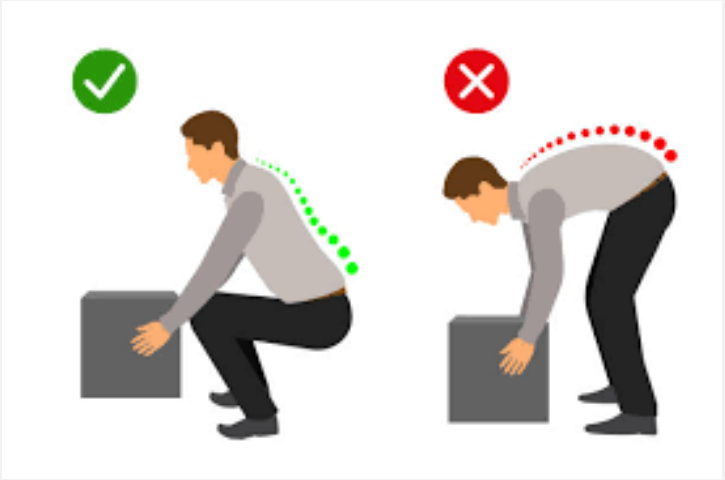
SAFE LIFTING – DON'T

- Bend your back forward while lifting.
- Twist while lifting.
- Carry children or objects in a bent over position.
- Pull objects.



SAFE LIFTING

- BACK STRAIGHT (NEUTRAL)
- AVOID TWISTING - USE YOUR FEET NOT YOUR BACK!
- CLOSE TO BODY
- KEEP SMOOTH



SUPPORTING CHILDREN SKILLS PRACTICE