

June 2022

Balance Basics: Mechanics





Definition

The ability to maintain your centre of gravity over your base of support

Centre of Gravity

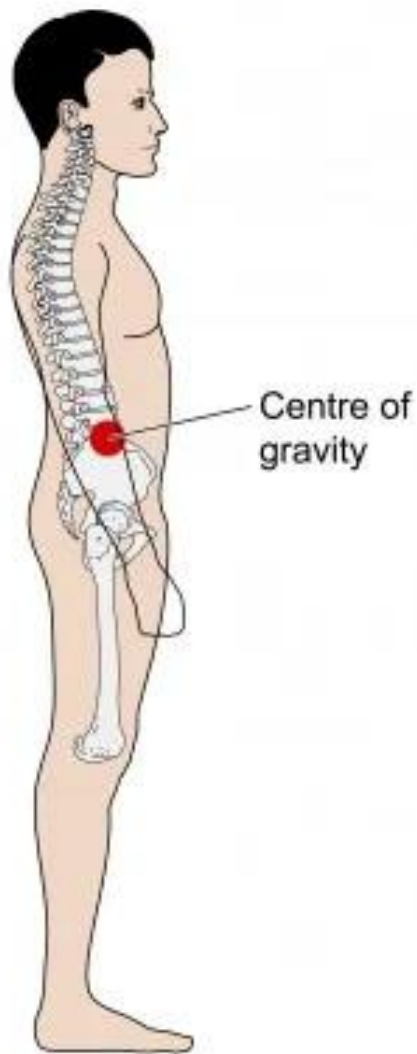
- What is it?
- Where is it?
- Does it change?



Balance Mechanics

Centre of Gravity

- What is it?
- Point at which weight is evenly distributed

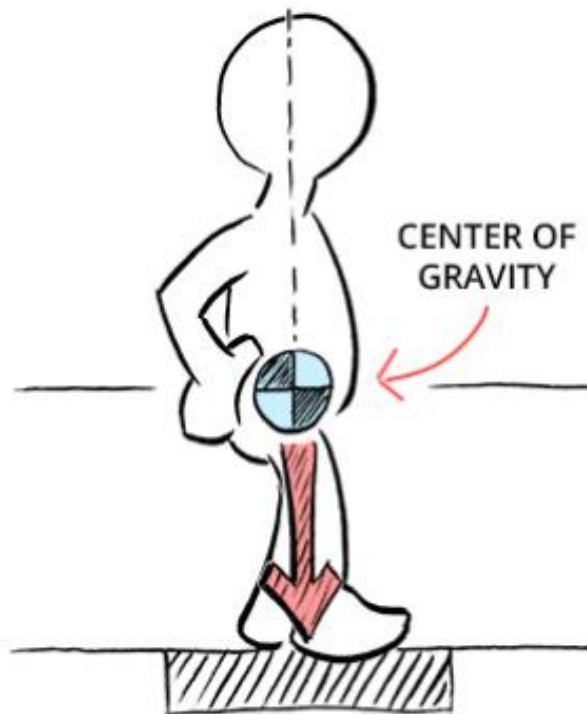


Balance Mechanics

Centre of Gravity

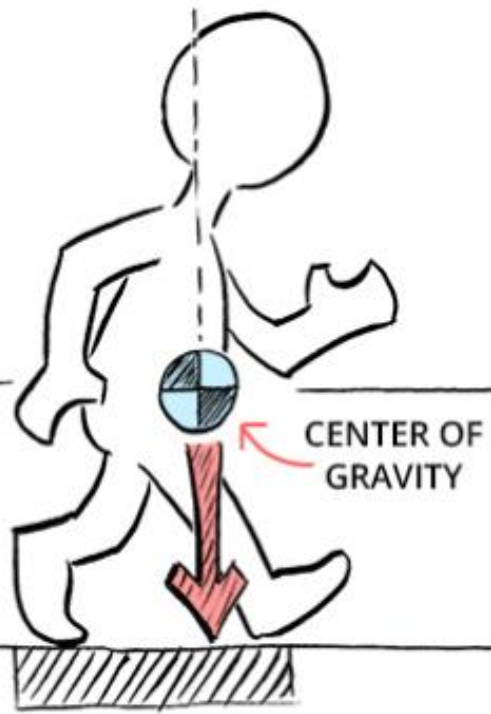
- Where is it?
 - Behind the belly button in standing

BODY CENTERLINE



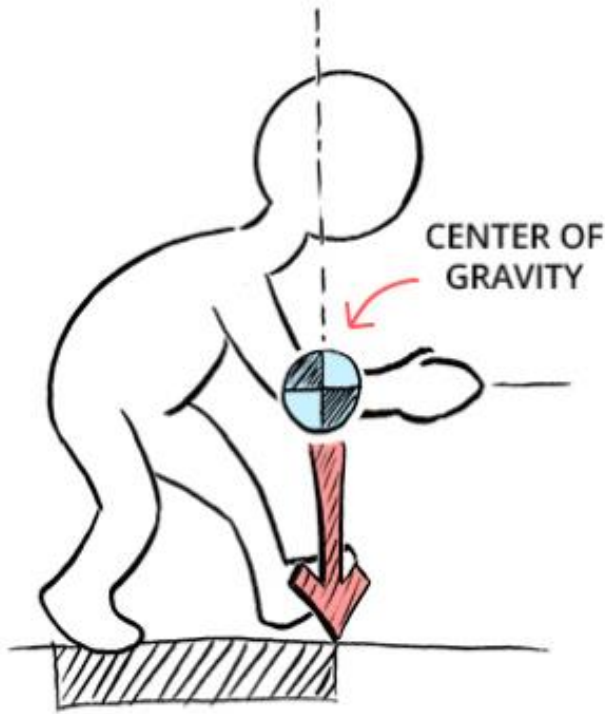
BASE OF SUPPORT
STANDING

BODY CENTERLINE



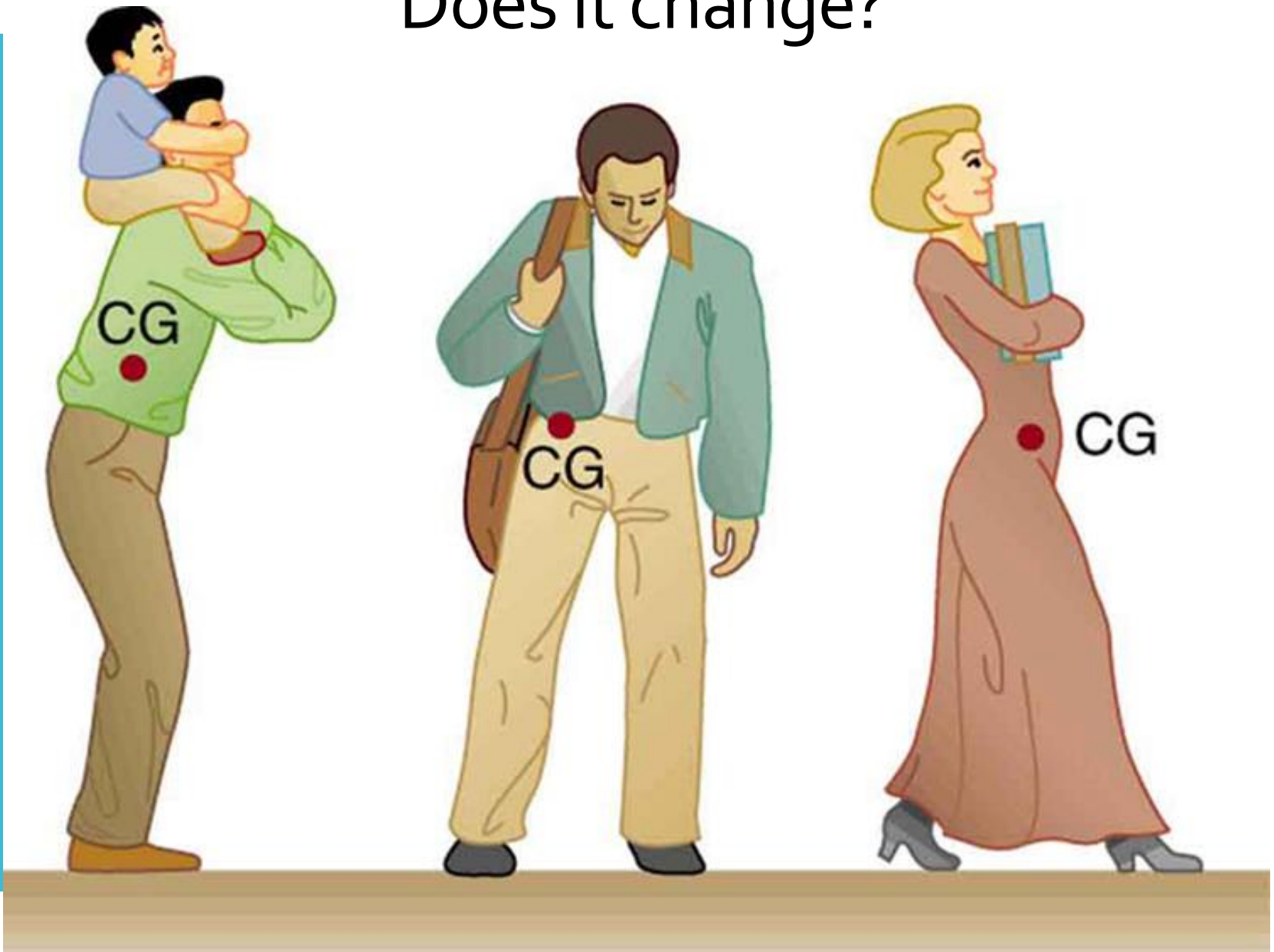
BASE OF SUPPORT
WALKING

BODY CENTERLINE



BASE OF SUPPORT
REACHING

Does it change?



Base of Support

- What is it?
- Where is it?
- Does it change?



Balance Mechanics

Base of Support

- What is it?
 - The area beneath a person that includes every point of contact that the person makes with the supporting surface



Balance Mechanics

Base of Support

- Where is it?
 - Points of contact may be body parts or may include things like furniture

Balance Mechanics

Stability

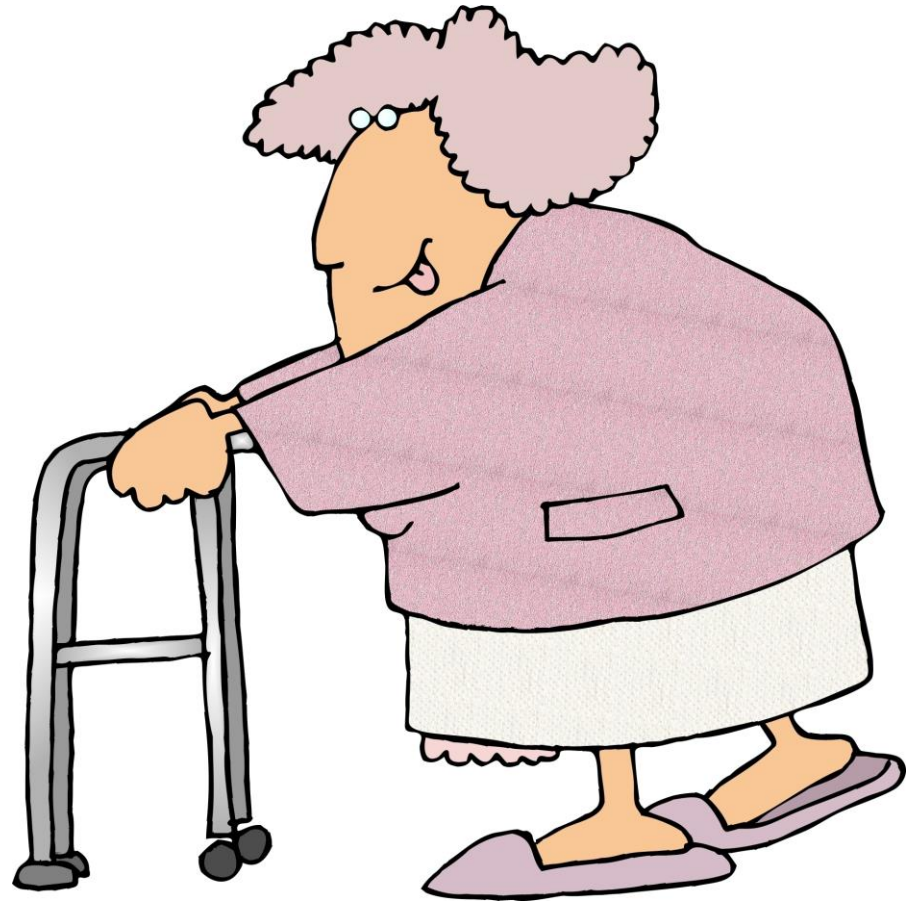
- How does it change?





Things we do... and why?

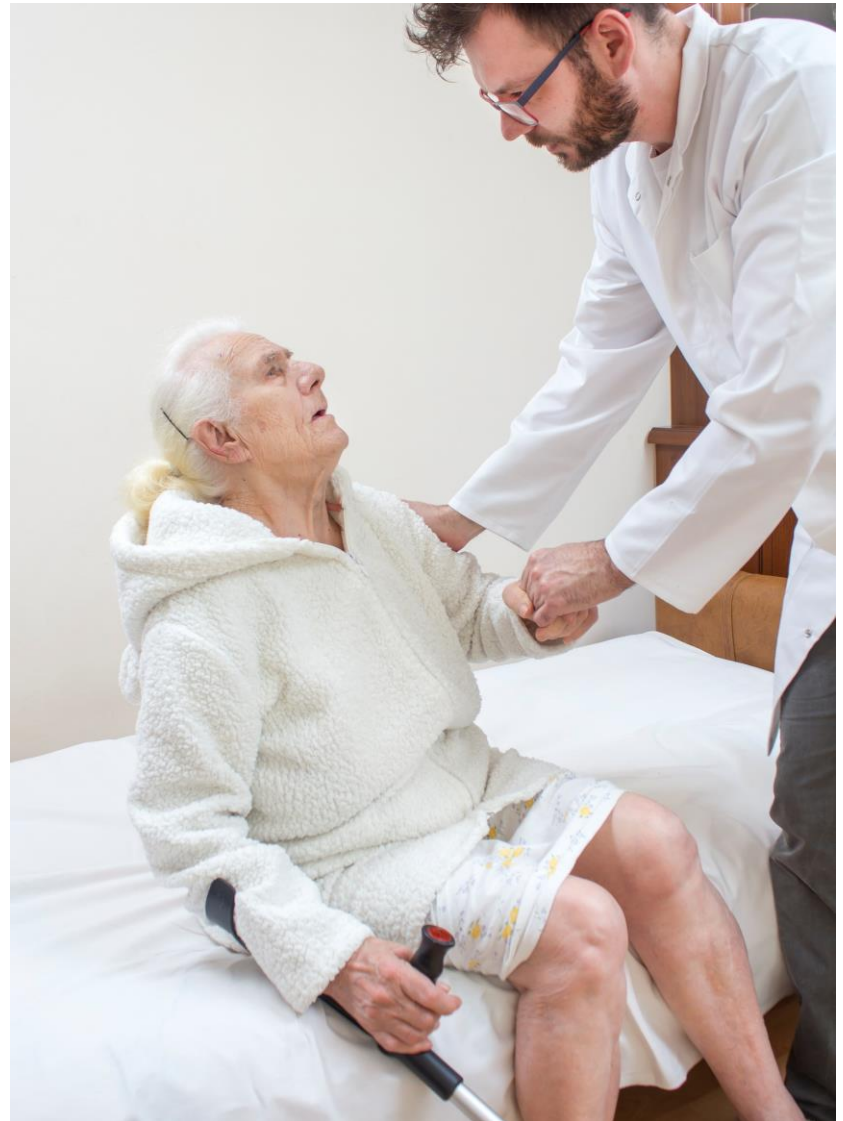
Provide a gait aid



Most common thing you will see when your patient is fearful of falling in sitting is to lean/push backward

Stop and recognize it as a fear reaction

Provide more stability in the environment





Limits of Stability

Area within which we can move over the base of support and remain stable.

In standing area is greater to front and sides and very limited backward

Assist to Walk

Stand on

WEAKER SIDE

and a bit **BEHIND**

with support at their
back



Things we do...
and why?



Step ups

Questions...

Please contact the
physiotherapist on
your team

