



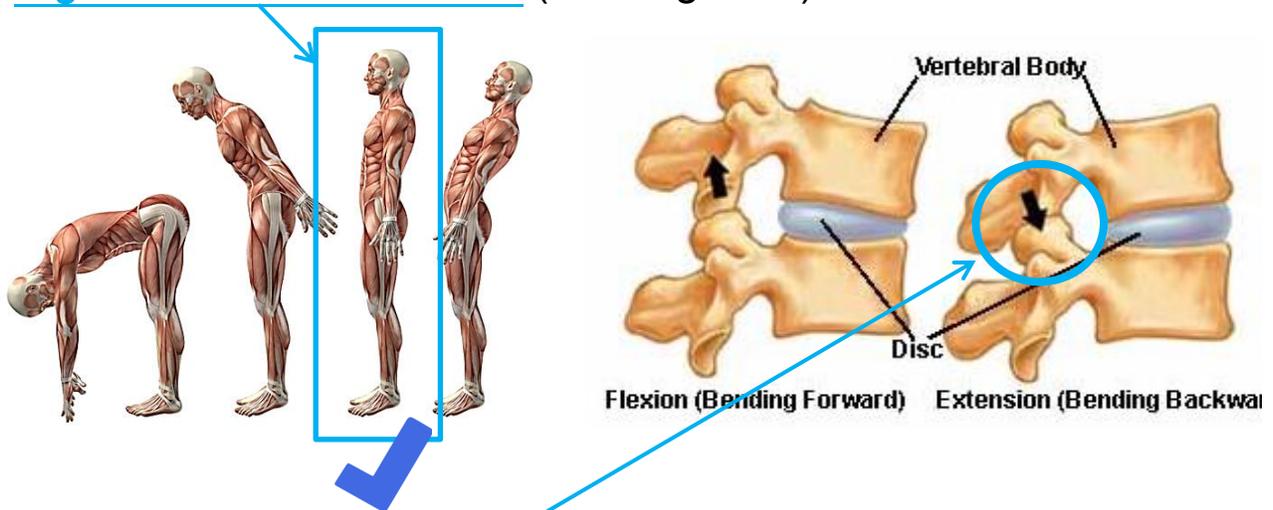
DR. EMMANUEL PARENTEAU

PAIN RELIEF & REHABILITATION

# SITTING ERGONOMICS MANUAL

## STEP 1: ANATOMY

Understanding that the low back is designed to mostly be in a [slight backwards extension](#) (bending back).



This allows the [facet joints](#) to touch and hold 20% of your weight.

When you sit, you still need to be slightly bending back in the low back region (i.e.: lumbar spine).

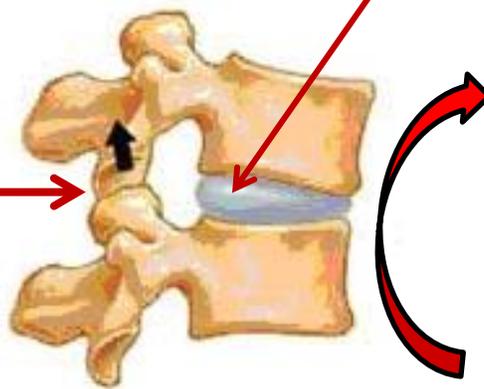
## STEP 2: **BAD** BIOMECHANICS

If you bend forward when you sit...



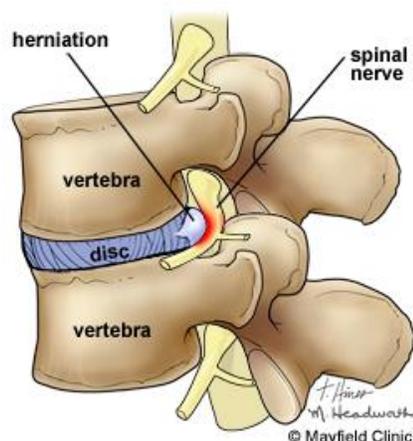
...you will lift the facet joints off each other and put too much weight on your discs. And notice how it **bulges back from the pressure**.

Facet joints are **NOT** touching each other so they cannot help bear the weight load



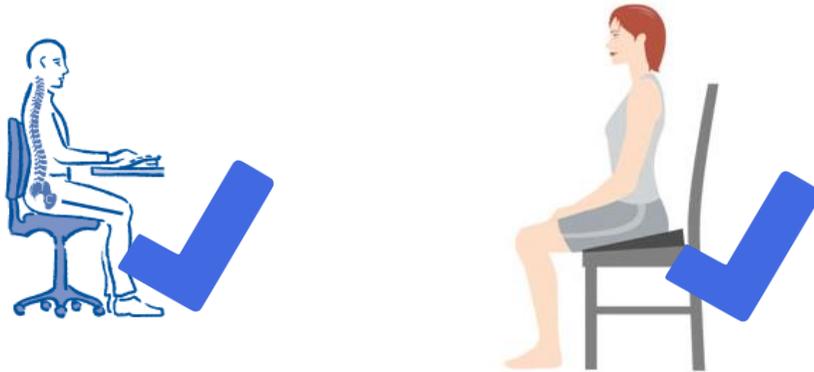
Spine is flexed forward instead of its normal position

Eventually, too much sitting in flexion will herniate your disc.



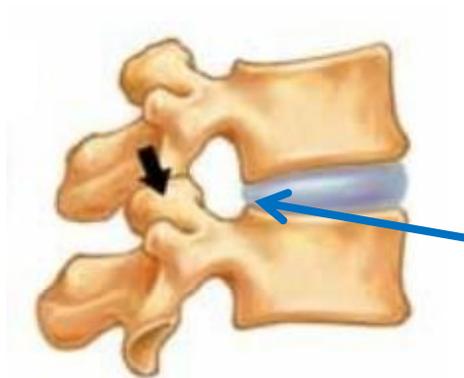
### STEP 3: **GOOD** BIOMECHANICS

If you keep your low back **bending slightly backwards** when you sit...



... you keep the facets touching each other, which removes pressure from the discs.

Facet joints **ARE** touching each other so the disc is not taking **ALL** the load



**NO** more bulging of the disc in the back

Backward Bend

This will preserve the health of your discs. If you sit and bend backward slightly, your low back won't know the difference between sitting or standing.

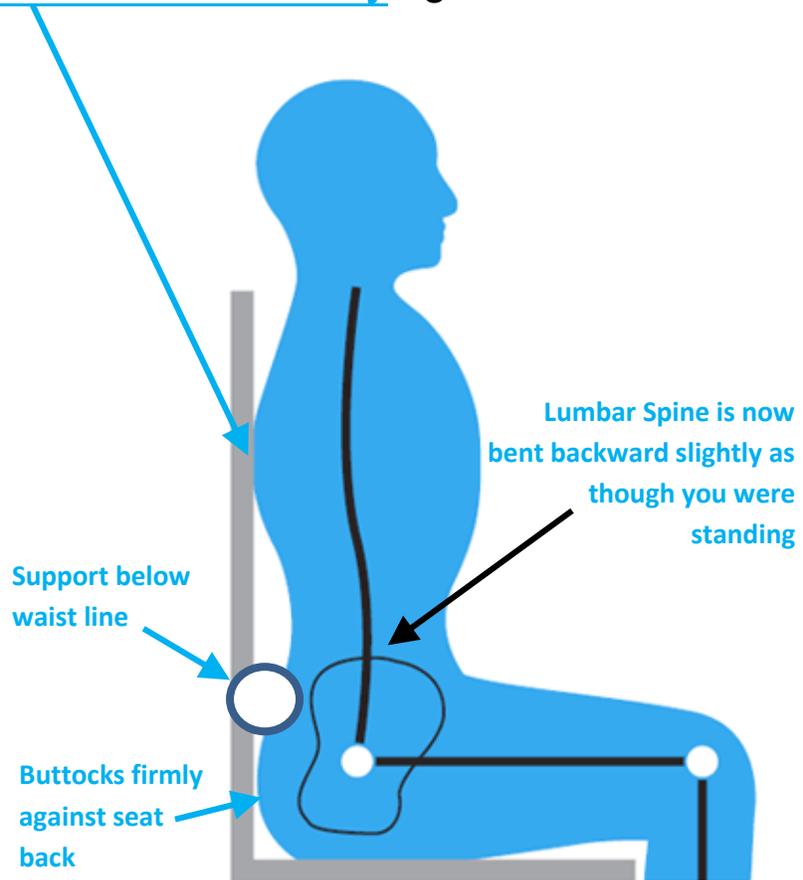
## STEP 4: HOW TO SIT PROPERLY

You will need a lumbar support. This is any 8 inch cylindrical object that is about the size of the fat end of a baseball bat.

- Options :**
- A. firmly rolled towel with both ends tapped tightly
  - B. a pool noodle cut in an 8 inch strip.



Place the support item right below the belt line on your pants, then slide buttocks back so it firmly contacts the seat back. Then, arch back and place shoulder blades firmly against seat back.

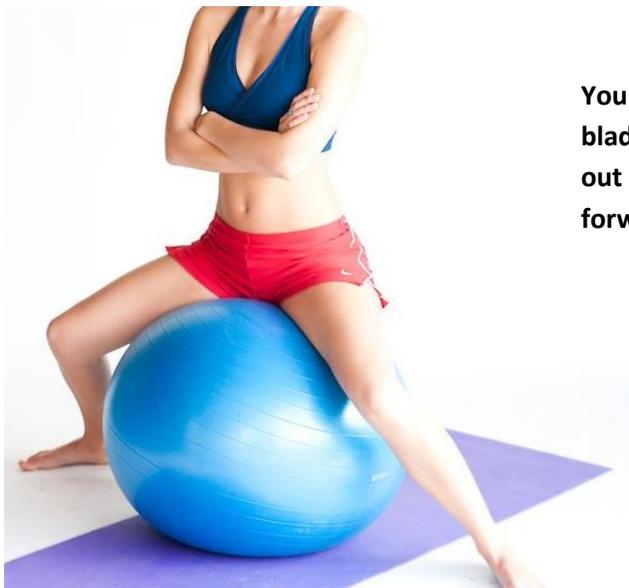


## STEP 5: ALTERNATIVE OPTIONS

You should vary your position throughout the day.

### OPTION 1: Exercise Ball

Straddle ball as though you were riding a horse. This keeps your muscles activated because you are keeping your balance.

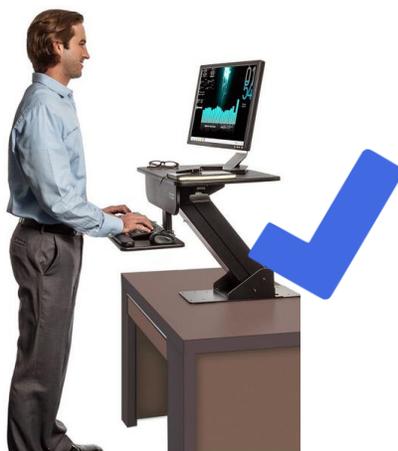


You will need to pinch your shoulder blades together and stick your chest out to prevent from slouching forward.



### OPTION 2: Standing

If you can, obtain a sit-stand desk or place your laptop on a high surface.



## STEP 6: MICRO BREAKS

You should stop every hour (or more) to do some mild office exercises. This helps prevent overloading the low back discs or fatiguing your postural muscles.

Click below for our recommended in-office exercise program.



See our many instructional videos on our [YouTube channel](#):

