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**I have no financial
interest in anything I am
talking about today.**



**Can shoe wear patterns then
provide information
regarding bilateral
integration and gross motor
development?**

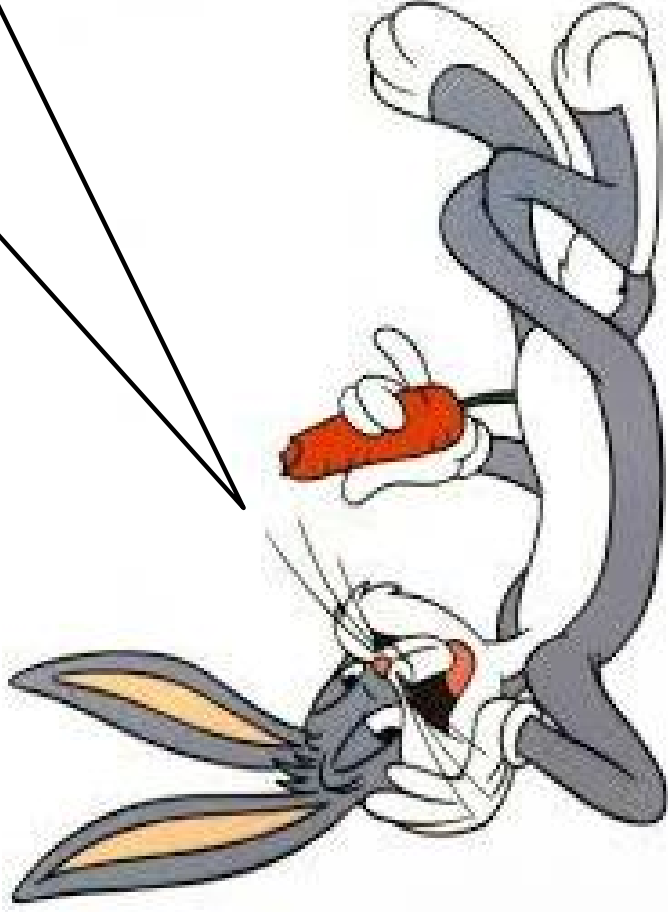
Shoe Patterns



Shoe Patterns



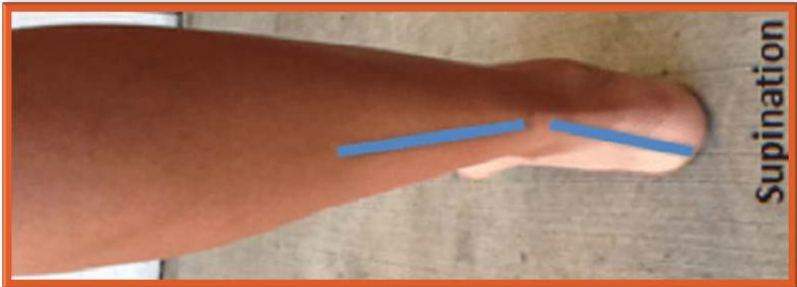
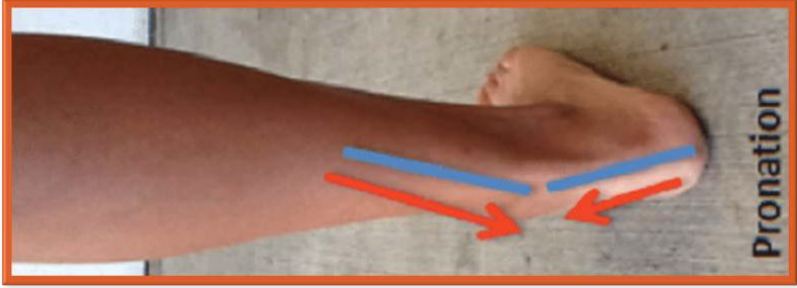
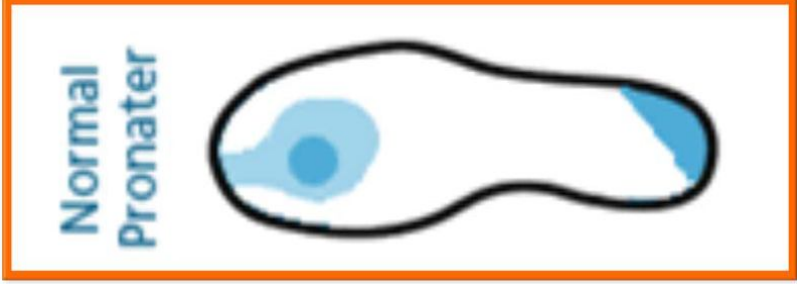
Ehh, So what does
that tell ya Doc?



Shoe wear patterns may
provide clues regarding
bilateral integration

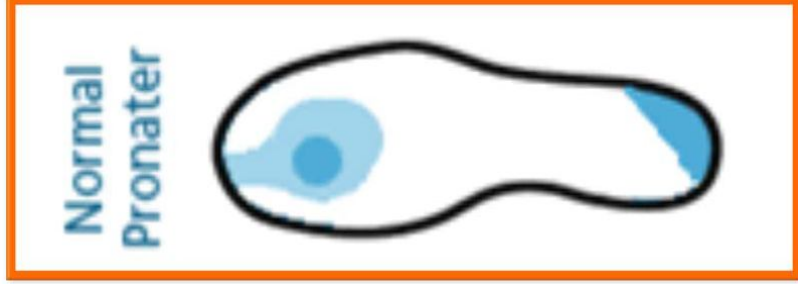


Three Basic Pronators



Normal Pronator

Integrated movement between heel strike, pronation, supination, normal degree of toe out and balance.



Normal Pronator



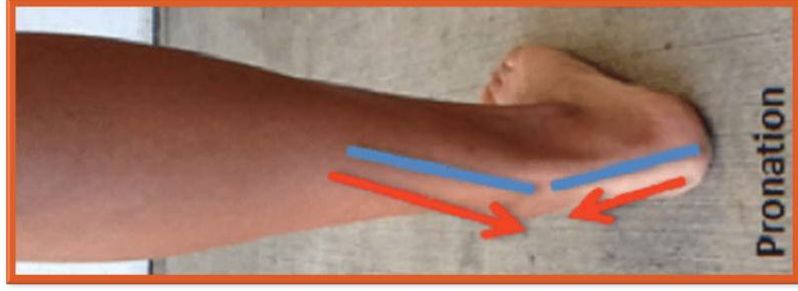
The wear pattern will be slightly to the side of the heel and across the toes in the center of the shoe.

Over Pronator

The foot rolls inwards and the arch flattens (flat foot)

Common causes:

Unknown; No signs of neurological or orthopedic conditions – Low Muscle Tone



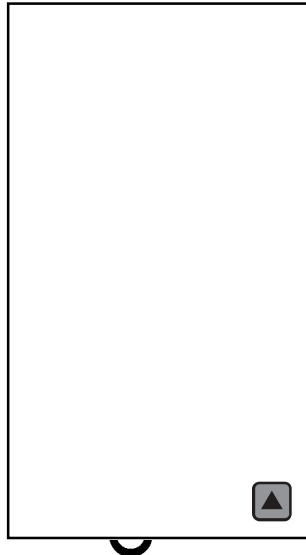
Over Pronator

Current Cause:

Reduced elasticity relates to joint hypermobility

Titin protein responsible for large muscle tension.

Longest word in English – 3.5 hours to pronounce



Over Pronator

Symptoms

Foot, leg and knee pain

Knees, hips, and back to shift out of alignment

More effort for balance, posture and movement

Wants to sit and rest more

Over Pronator

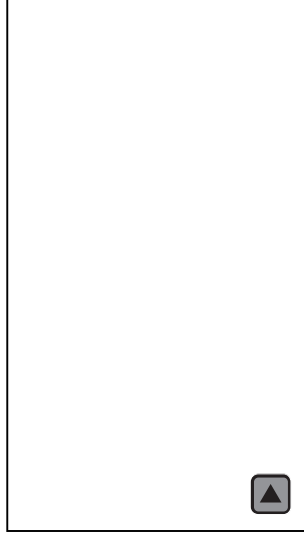
Symptoms

Pulling to stand and potential late walker

Clumsy or sloppy gait

Gross motor skill - does not like climbing;
walking or stairs

W - Sitting



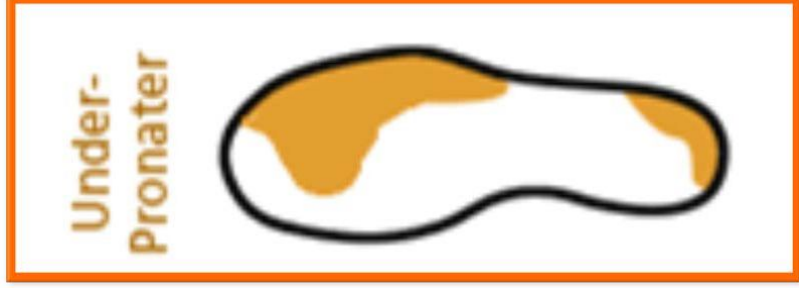
Over Pronator

The wear pattern will include more of the heel have more wear over the big toe.



Under Pronator

The foot rolls outwards and most of the weight falls on the outside of the foot and you push off with the outer toes.



Under Pronator

Common causes:

Genetics (inherited through families)

Muscle weakness of foot, ankle or leg

Improper shoes

Injury of the foot or leg

Misalignment of the body

Under Pronator

Symptoms

Stress on the knee

Back and hip pain

Ankle injuries

Plantar fasciitis

Under Pronator



The wear pattern will include more of the side of the heel have more wear over the little toe.





“The wear pattern on your running shoes suggests that you watch too much TV.”



That's all folks!