

## The crossed extensor reflex :

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- A polysynaptic reflex.
- Ex. Painful stimulation of one foot causes flexion (withdrawal) of the ipsilateral leg as well as the extension of the contralateral leg, to stabilize the posture; thus the ipsilateral leg flexors are activated and the extensors are inhibited and vice versa in the contralateral leg.

## The withdrawal reflex (flexor reflex)

- The automatic withdrawal of an extremity from a painful stimulus.
- A polysynaptic reflex.
- Sensory pain signals excite motor neurons to the flexor muscles, eliciting flexion and withdrawal of the leg.
- Motor neurons to the extensor muscles are inhibited via inhibitory interneurons.
- This would relax the extensors of the same leg.

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## The withdrawal reflex

