

TONIC: Always receptive.

PHASIC: Looking for “change”...info on intensity & rate of stimulus.

*some receptors combine both types.

ADAPTATION: reduction in sensitivity in presence of constant stimulus; due to a lowering of permeability of neurolemma or inhibition of nuclei within CNS (“central adaptation”)

*Fast Adapting: strong at first, then decreases; characteristic of phasic receptors (ex: thermoreceptors)

*Slow Adapting: Tonic receptors show little adaptation. Ex: nociceptors.

TACTILE: fine touch & pressure; detailed info on source, with location, shape, size, texture & movement.

1. Free Nerve Endings: Nociceptors, thermo- and mechanoreceptors. Touch & pressure. Tonic.
2. Root Hair Plexus. Exteroceptors, Mechanoreceptors. Phasic. Fast adaptation. Feeling clothing when you move.
3. Merkel's Disk: Fine touch & pressure. Tonic.
4. Meissner's corpuscles. Fine touch & pressure. Very fast adapting. Fingertips, external genitalia lips & nipples.
5. Pacinian corpuscles. Deep pressure/stretch/vibration of skin. Phasic, fast adapting, scattered through dermis (subcutaneous tissues), especially joints, mesenteries, fingers, mammary glands, external genitalia.
6. Ruffini corpuscles: pressure/distortion/stretch of skin, but deeper (deep dermis) tonic, little adaptation.
7. Muscle spindles: proprio- mechanoreceptors. Skeletal muscles.
8. Golgi Tendon: same as above, but within tendons.