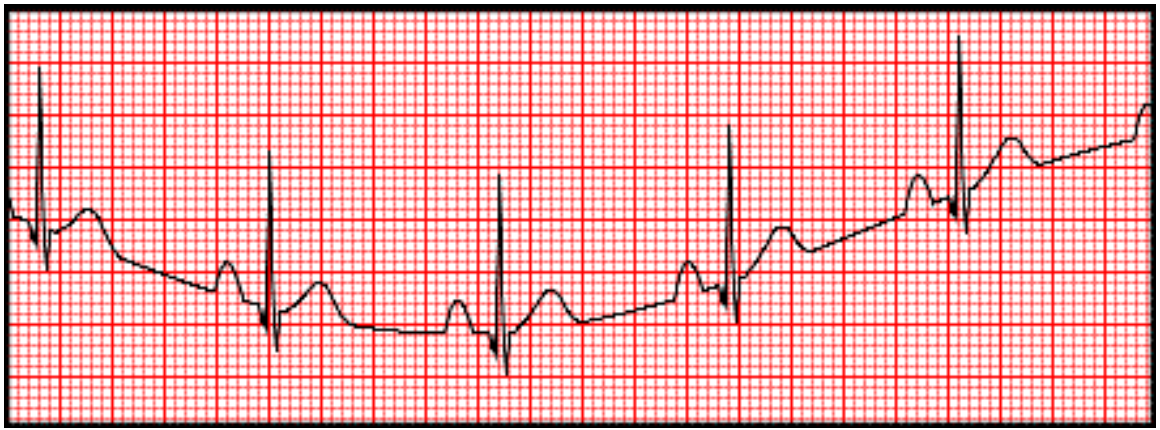
Artifacts

Wandering Baseline



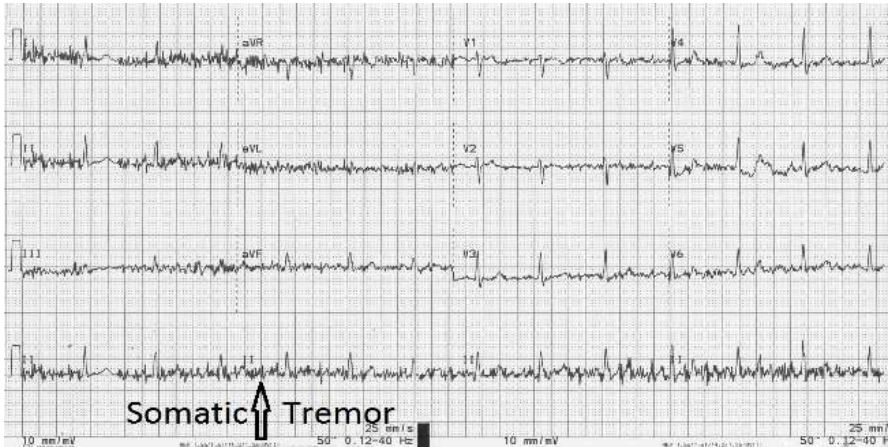
Happens when electrodes are improperly placed, movement of cables during reading, loose electrodes, dry electrodes, patient has labored breathing, patient moves during reading, or traces of lotion on the skin.

How to reduce wandering baseline: move limb leads from torso to wrists and ankles, have patient relax and breathe slowly, clean skin properly.

Seizure and Trembling

Causes major artifacts on EKG tracings--can be caused by seizure, anxiousness, cold or essential tremors.

Can be reduced by controlling seizure activity prior to reading, reassuring patient to keep them calm, providing blankets to keep patient warm, or moving electrodes to an area with minimal tremor.

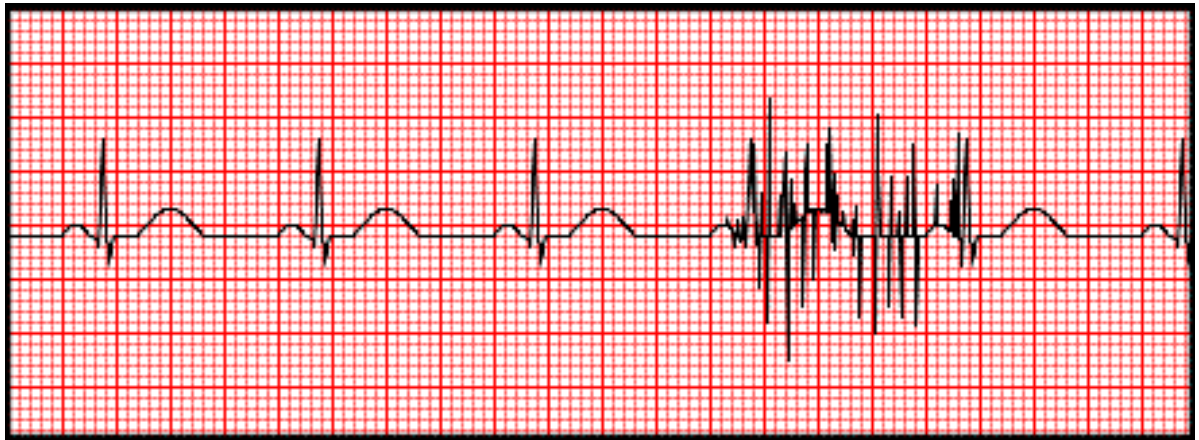


Dry or Wet Skin

Dry skin: electrodes and gel won't adhere well, there won't be enough surface area contact to ensure strong signal.

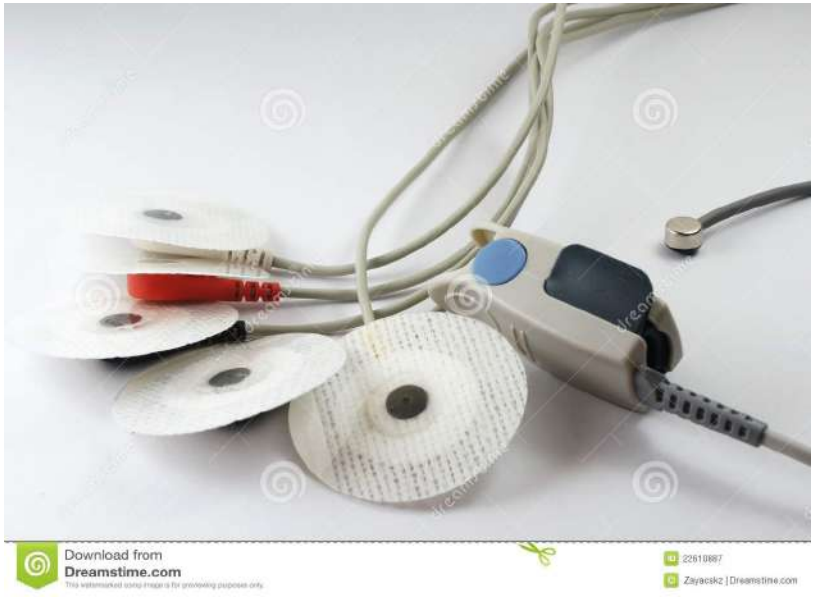
To reduce artifacts on dry skin: gently abrade the skin and apply tincture of benzoin

To reduce artifacts on wet skin: wipe patient with a towel and apply tincture of benzoin



Dry Gel

EKG gel is specifically designed to interface with the skin and EKG electrodes, and increased the signal strength recorded. Gel that has dried out is not effective in promoting signal reception.

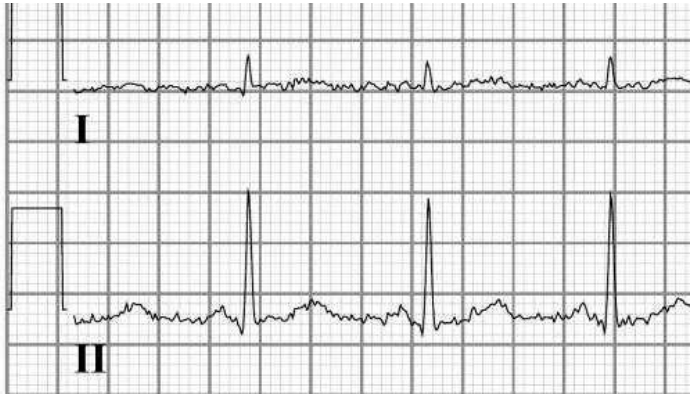


Interference

Cell phones and other electrical devices causes artifacts such as flutter waves or extra P waves at a rate of 300+ per minute.

To eliminate this artifact, cell phones must be off and/or moved away from the patient, and unnecessary electrical/medical devices are moved away or turned off.

Most medical devices are specifically designed not to cause interference, so look for non-medical device causes first.



Pacemaker Spikes

Depending on the type of pacemaker, spikes may be shown throughout the rhythm on EKG tracing. The spike indicates the firing of the pacemaker.