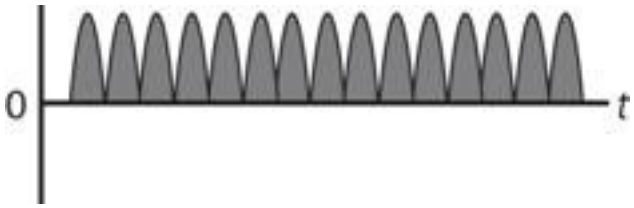
Diadynamic Stimulators

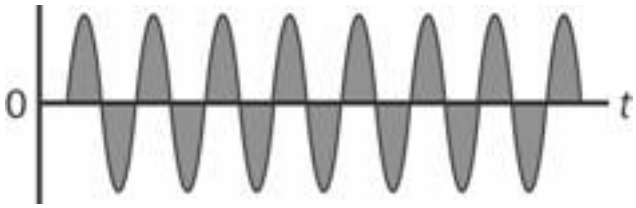
This class of electrical stimulators has been used in Europe and Canada, however diadynamic stimulators may unfamiliar to most practitioners in the US. These devices use variations of the sine wave to produce monophasic and biphasic continuous or pulsed currents. Polarity reversing is recommended to reduce the undersirable effects of DC on the skin.

Two main types which are characterized by the different types of waveforms produced by the device.

1. Half-wave rectification (single phase or monophasé fixe (MF))
   Eliminates the second half of each AC cycle to produce a monophasic pulsed current with a pulse duration equal to the interpulse interval and a frequency equal to that of the original AC
2. Full-wave rectification (double phase or diphasé fixe (DF))
   Produces a monophasic pulsed current with no interpulse internal at twice the original AC frequency



Example of 1/2 Wave Diadynamic Stimulation Pattern



Example of Full Wave Diadynamic Stimulation Pattern

Types of Waveforms

- Sinusoidal (half-wave and full wave)
- Symmetric

Clinical Consideration

Many devices recommend the administration of a DC before application of the diadynamic current. This may not be well accepted by the horse depending on the amplitude.