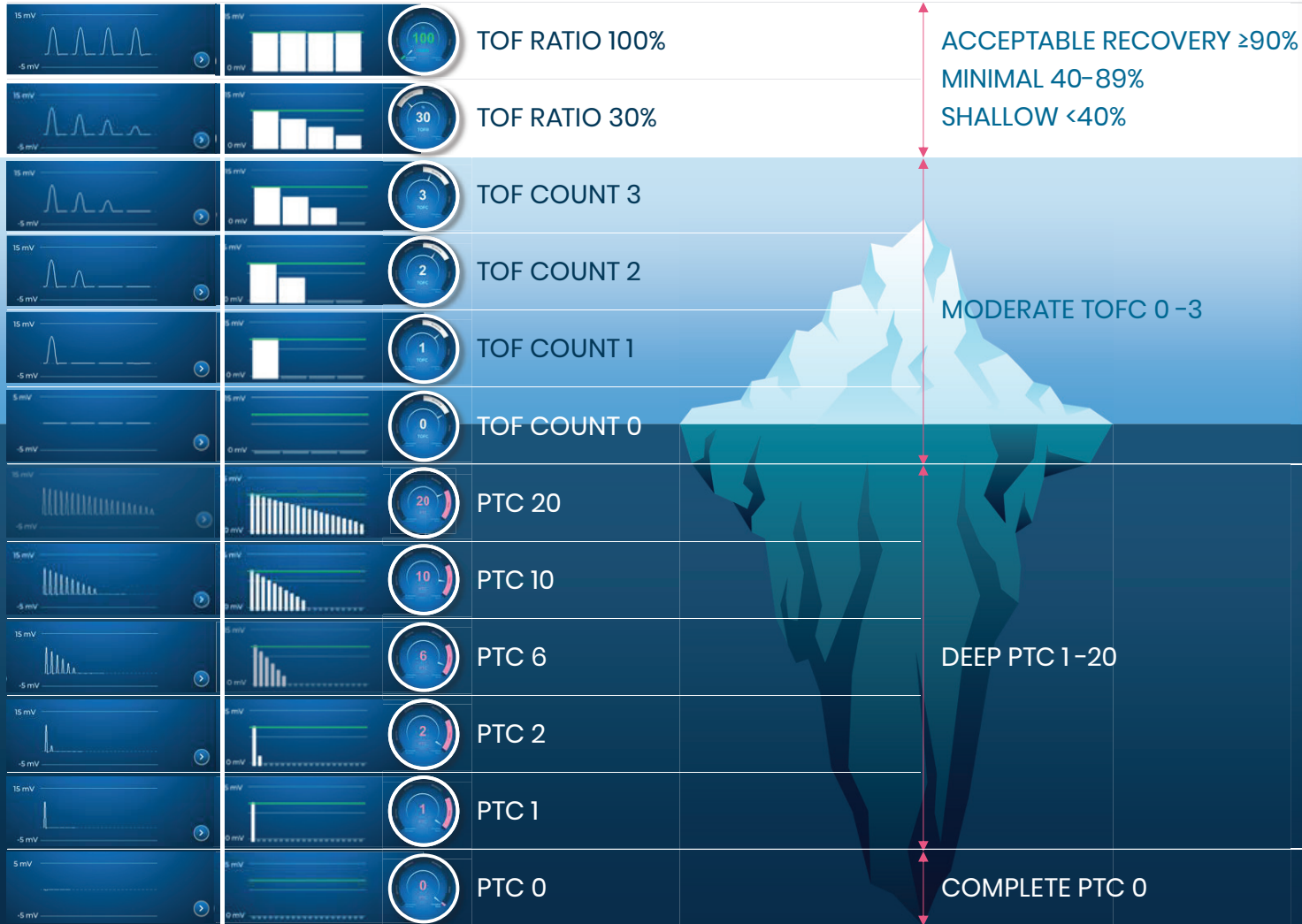


Understanding **EMG**

EMG Waveform

Bar Graph

TetraGraph® Level-of-Block Gauge™



70-90%:

Subjective weakness, decreased hypoxic ventilatory response, impaired airway reflexes and upper airway obstruction.

60%:

Normal vital capacity can be achieved.

40%:

Limit of even experienced anesthesiologists to reliably detect fade using subjective qualitative methods.

30%:

Patients can sustain five second head lift.

10%:

Normal tidal volume can be generated.

PTC 10:

Halfway to the return of a twitch.

PTC >2:

Diaphragm movement can occur.

PTC 0:

Complete block; no diaphragm movement.

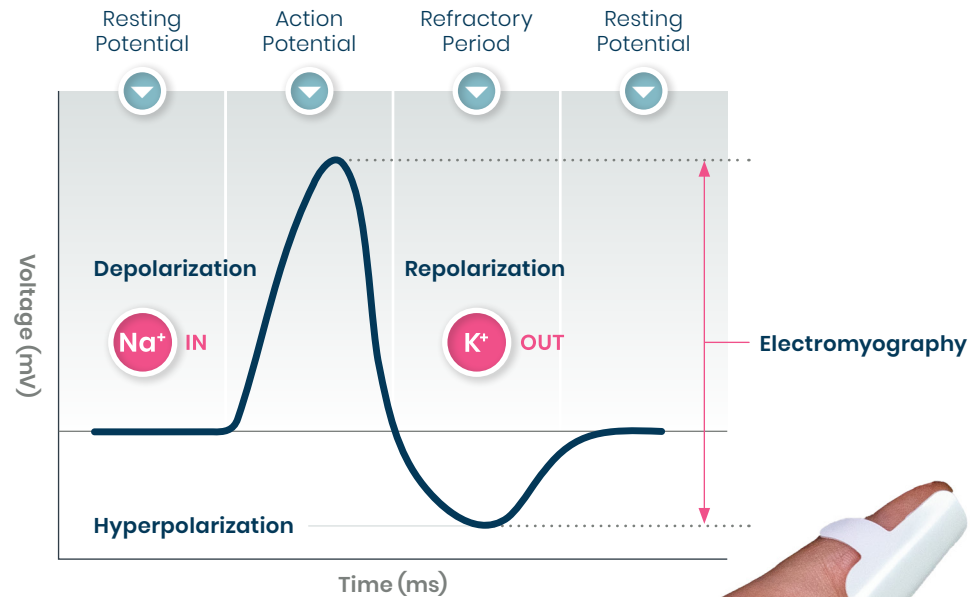
Understanding **EMG**

Gold Standard Measurement

EMG measures the peak electrical signal during depolarization at the neuromuscular junction. The muscle action potential is the first signal that can be measured after neuromuscular transmission.

Other methods measure the contractile response via movement or subjective assessment (PNS).

The TetraGraph utilizes the formed EMG complex, including its peak and trough, on each stimulation to determine the train-of-four measurement.



Action Potential

Acetylcholine Release

Channel Opening

Endplate Potential

Depolarization Muscle Membrane

Electromechanical Coupling

Muscle Contraction

- Visual | Tactile (PNS)
- Mechanomyography
- Acceleromyography
- Kinemyography
- Phonomyography

