

# Effects of Electric Current in the Human Body

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Notes:

- 1,000 milliamperes = 1 amp
- 15,000 milliamperes = 15 amp circuit
- As a point of reference, a common household circuit breaker is usually 15, 20 or 30 amps

Current	Reaction
<b>Below 1 milliampere</b>	<ul style="list-style-type: none"><li>• Generally not perceptible</li></ul>
<b>1 milliampere</b>	<ul style="list-style-type: none"><li>• Faint tingle</li></ul>
<b>5 milliamperes</b>	<ul style="list-style-type: none"><li>• Slight electrical shock (not painful, but disturbing)</li><li>• Average person can let go</li><li>• Strong involuntary reactions can lead to other injuries</li></ul>
<b>6-25 milliamperes (women)</b>	<ul style="list-style-type: none"><li>• Painful electrical shock</li><li>• Loss of muscular control</li></ul>
<b>9-30 milliamperes (men)</b>	<ul style="list-style-type: none"><li>• Cannot let go but can be thrown from circuit if extensor muscles are stimulated</li></ul>
<b>50-150 milliamperes</b>	<ul style="list-style-type: none"><li>• Extreme pain</li><li>• Respiratory arrest</li><li>• Severe muscle contractions</li><li>• Death is possible</li></ul>
<b>1,000-4,300 milliamperes</b>	<ul style="list-style-type: none"><li>• Heart stops</li><li>• Muscle contractions</li><li>• Nerve damage</li><li>• Death is likely</li></ul>
<b>10,000 milliamperes</b>	<ul style="list-style-type: none"><li>• Cardiac arrest</li><li>• Severe burns</li><li>• Death is probable</li></ul>