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# What is Electrolysis & How Does It Work?

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## WHAT IS ELECTROLYSIS?

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Electrolysis is a method of removing individual hairs from the body permanently. Regardless of the cause - heredity, metabolic or hormonal conditions - electrolysis will permanently remove unwanted hair to reveal a glowing, confident you. source: American Electrology Association

## HOW DOES ELECTROLYSIS WORK?

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A professional electrologist inserts a very fine probe {usually the size of the hair being treated} into the natural opening of the hair follicle alongside the hair shaft. A tiny amount of electrical current is then applied to create a chemical or heat energy reaction to destroy the hair growth cells.  
source: American Electrology Association

## WHAT ARE MODALITIES?

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Medical electrolysis devices can destroy the hair growth cells with chemical energy, heat energy, or both. The method chosen by the electrologist is called the modality. There are three modalities in current use:

**GALVANIC** is a chemical process. A DC (direct) current passes through the needle charging the moisture (H<sub>2</sub>O) and salt (NaCl) naturally found in the follicle causing a chemical reaction. This chemical reaction produces sodium hydroxide (lye). The lye destroys the hair follicle by chemical decomposition.

**THERMOLYSIS** produces heat (aka short-wave). The AC (alternating) current passing through the probe causes vibration in the water molecules surrounding the hair follicle which produces heat that destroys the hair growth cells in the follicle. A higher intensity current can be applied for less time in the follicle, or current can be used at lower intensity with longer timing.

**THE BLEND METHOD** combines the benefits of galvanic current with thermolysis current. A DC current is passed through the probe, producing lye, which is then heated up by the AC current. The heat spreads the lye around the follicle, ensuring proper damage to the hair follicle tissue. This is faster than Galvanic alone, but still more time consuming than Thermolysis. This combination has been found to be more effective in the rate of hair destruction over time.

All three modalities are effective and the electrologist usually selects the one with which they are most familiar. However, an electrologist who is used to working with Thermolysis may choose to use Blend or Galvanic if their client has coarse, curly, or wavy hairs and or a low-pain threshold when receiving Thermolysis alone.

source: American Electrology Association + Zap Electrolysis