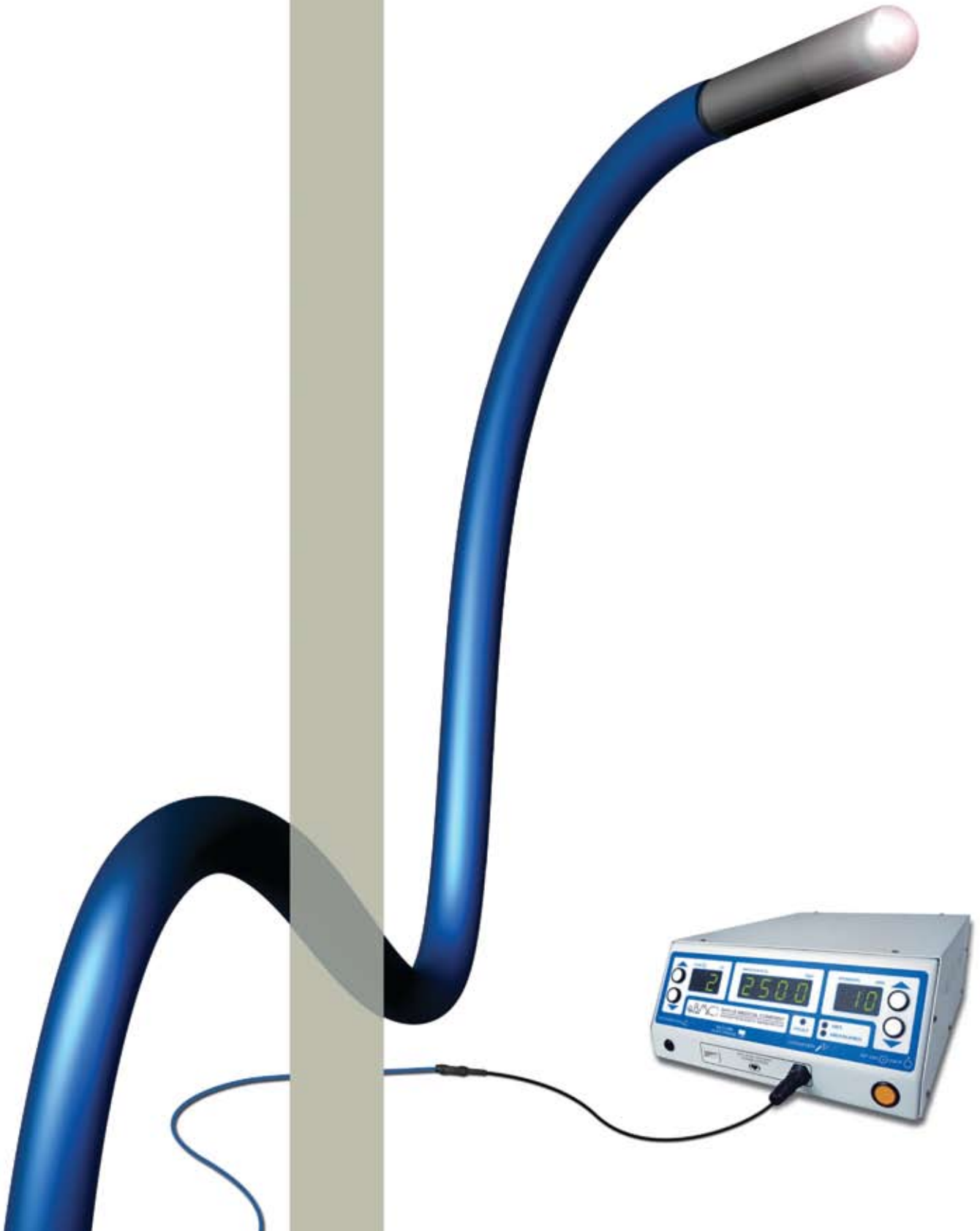
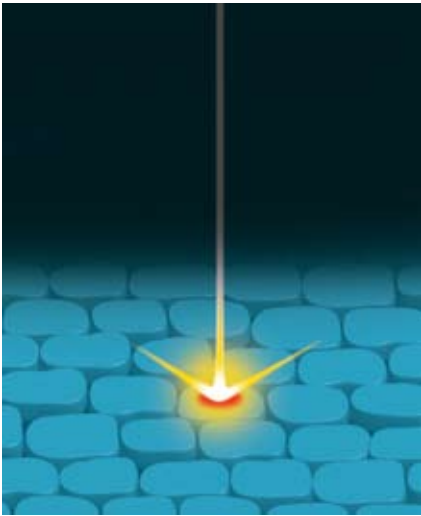


Baylis
MEDICAL

RF Puncture System

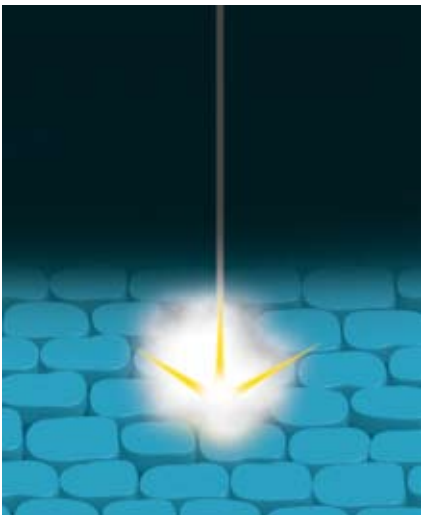


RF Puncture Technology

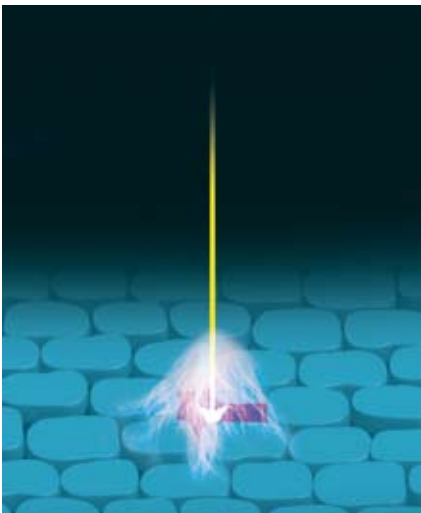


HOW IT WORKS

Electroporation is the formation of aqueous pores in the cell membrane due to the dielectric breakdown of the cell when subjected to a high electric field. Cell membrane conductance and permeability increase as a result of electroporation.



This results in an increase in the flow of water and current in the cell, causing the temperature of the cellular membrane inside the cell to rise almost instantaneously to 100°C to cause complete cellular desiccation and consequent cell rupture.



A "sparking" phenomenon is indicative of this event, which concentrates the current in a very small area beyond the gap. Puncture of a tissue layer occurs after successive repetition of this process of cellular heating, desiccation, arcing, and advancement of the active electrode.

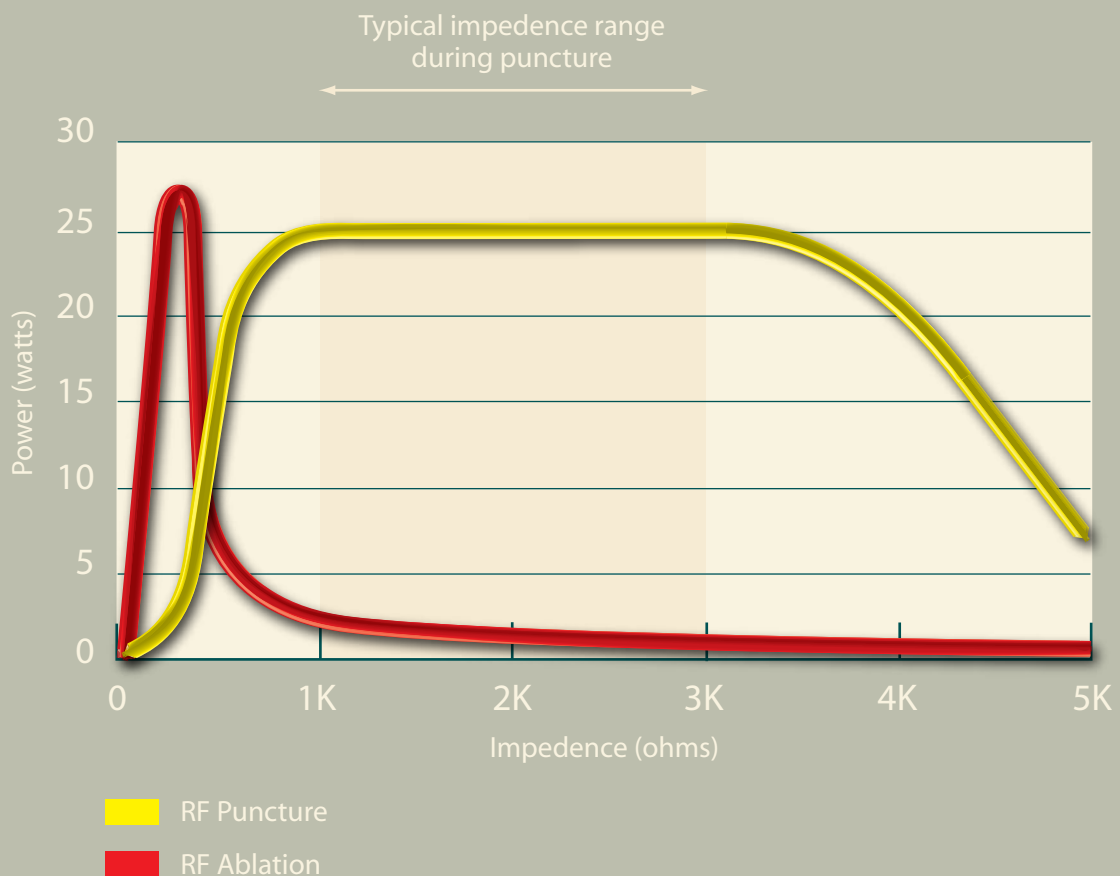
RF Puncture vs. RF Ablation

RF PUNCTURE

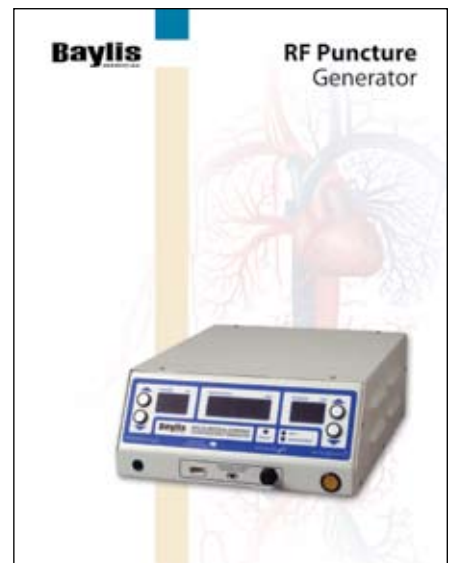
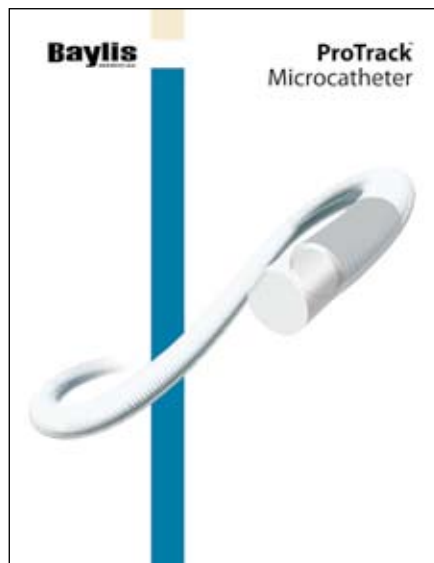
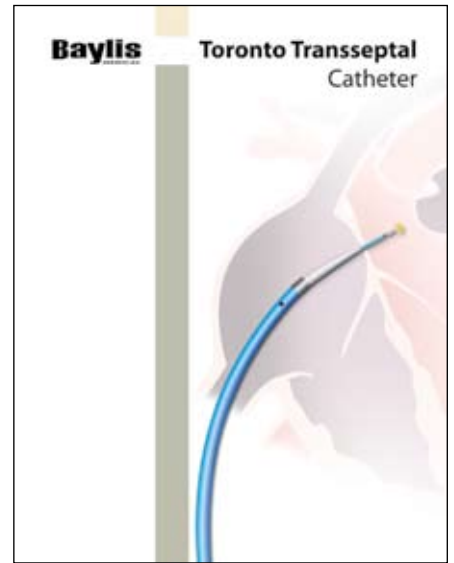
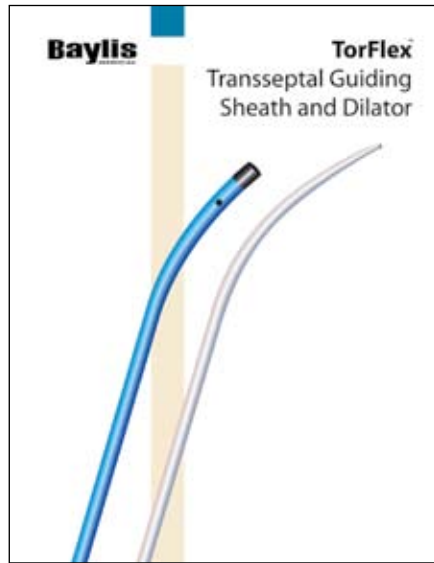
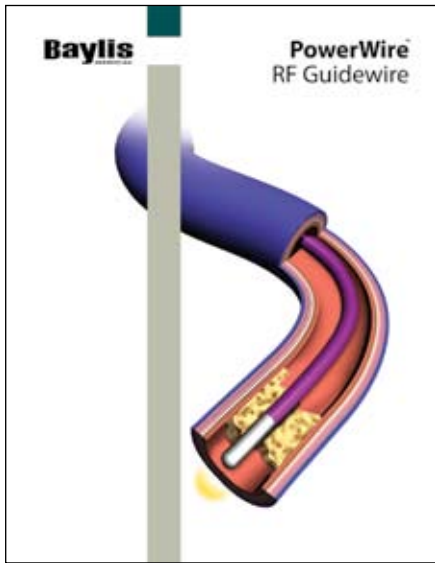
- Objective: To create a small opening in cardiac tissue
- Occurs under the following conditions:
 - Low power (5-25 watts)
 - Short duration (1-3 seconds)
 - High voltage (150-180V)
- Impedance range: 2000-6000 Ω
- Minimal collateral damage to surrounding tissue

RF ABLATION

- Objective: To create a large lesion to destroy electrically conductive tissue
- Occurs under the following conditions:
 - High power (35-50 watts)
 - Long duration (60-90 seconds)
 - Low voltage (35-50V)
- Impedance range: 150-300 Ω
- Thermal destruction of surrounding tissue



RF Puncture System Devices



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CAUTION: Federal Law (USA) restricts the use of this device to or by the order of a physician.

Patents Pending and/or issued

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