



# SKIN | CANCER | FOCUS

## Electrosurgery

Electrosurgery is a surgical technique that uses high-frequency electrical currents to cut tissue or coagulate (seal) blood vessels during surgical procedures. It is commonly used in dermatology for the removal of skin lesions, including warts, moles, and certain skin cancers.

## Types of Electrosurgery

### Monopolar Electrosurgery

Involves a single electrode that delivers an electrical current through the tissue to a grounding pad placed on the patient.

**Uses:** Effective for cutting through larger areas of tissue and for coagulating.

### Bipolar Electrosurgery

Uses two electrodes, with the current passing between them, allowing for more localised treatment.

**Uses:** Ideal for smaller procedures and delicate tissues, such as in cosmetic surgery.

**Our state of the art device can be adjusted to provide both unipolar and bipolar power**

## Mechanism of Action

Electrosurgery generates heat through electrical resistance when the current passes through tissue. This heat can cut through the tissue, destroy abnormal cells, or coagulate blood vessels to minimise bleeding.

## Benefits

- **Precision:** Allows for precise cutting and coagulation, minimising damage to surrounding tissues.
- **Reduced Bleeding:** Coagulation reduces blood loss during the procedure, leading to a cleaner surgical field.
- **Versatility:** Can be used for a wide range of procedures, including excisions, biopsies, and cosmetic surgeries.

## Indications

- Removal of skin lesions (e.g., warts, moles, skin tags)
- Treatment of superficial skin cancers (e.g., basal cell carcinoma, squamous cell carcinoma)
- Cosmetic procedures (e.g., scar revision, wrinkle removal, cosmetic mole removal, shave biopsies or excisions, sebaceous gland hypertrophy ablation, rhinophyma treatment, ablation of small blood vessels)

## Procedure

1. **Preparation:** The area is cleaned and, if necessary, local anesthesia is administered.
2. **Electrosurgery:** The surgeon uses an electrosurgical instrument to perform the procedure, either cutting or coagulating as needed.
3. **Post-Procedure Care:** The treated area may be dressed, and specific aftercare instructions will be provided to promote healing.

## Side Effects and Risks

- **Common Side Effects:** Redness, swelling, and discomfort at the treatment site. These effects are usually temporary.
- **Potential Risks:** Infection, scarring, and changes in skin pigmentation. In rare cases, deeper tissue damage can occur if the technique is not performed correctly.

## Aftercare

- Keep the area clean and dry
- Silicone dressings
- Follow any prescribed post-operative care instructions, including how to manage dressings
- Monitor for signs of infection, such as increased redness, swelling, or discharge.

## Conclusion

Electrosurgery is a valuable tool in dermatology and other surgical fields, offering precision and effectiveness in treating various skin conditions. It is important to discuss any concerns and follow the healthcare provider's recommendations for optimal outcomes.

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## References

- American Academy of Dermatology
- National Institutes of Health (NIH)
- Clinical practice guidelines on electrosurgery

**This information sheet is intended for educational purposes and should not replace professional medical advice. Always consult with a qualified healthcare provider for specific medical concerns or conditions.**