

ESPCN Policy and Procedure: Cryotherapy

Approved by: Program Lead, Nursing and Clinical Director

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The nurse is responsible and accountable for the restricted activities they perform within their nursing practice. In addition to the procedure outlined below, the nurse must also review and practice according to the ESPCN Policy: Restricted Activities.

Required Steps to Achieve Competency

It is the professional responsibility of the nurse to assess and ensure competency to perform this restricted activity. The following steps outline the minimum requirements for nurses at ESPCN to achieve this competency.

1. The nurse will read through the required reading:
[Lippincott Wart Removal, Ambulatory Care](#)¹
[Lippincott Cryotherapy, Ambulatory Care](#)²
[Cutaneous warts \(common, plantar, and flat warts\)](#)⁴
2. Once the required reading has been completed and the policy and procedure has been reviewed, the nurse will complete the following activity: [Learning Activity- Cryotherapy-Final-December 2025.pdf](#).
3. The nurse will review the procedure with a Clinical Educator, Nursing, prior to application in practice.
4. The nurse will be required to observe the procedure at least once as well as be supervised while performing the procedure by a competent nurse (or provider in the clinic) until the nurse achieves self-determined competency.
5. Once the nurse determines they are competent to perform cryotherapy, they will complete the following form: [Competency Pathway Form: Cryotherapy](#).
6. The nurse engages in continual self-reflection and assesses their own competency to complete this restricted activity.

Clinic Requirements

Clinic Supplies:

- Liquid nitrogen (either cryogun with tips or Styrofoam cups with cotton-tipped applicators)
- Safety-engineered scalpels or emery board/nail file/pumice stone
- Gloves
- Bandages
- Antiseptic swabs
- Appropriate PPE for liquid nitrogen handling if nurse is involved in transferring liquid nitrogen.

	<p>Clinic Process: Safe handling practices of liquid nitrogen as per the product’s Materials Safety Data Sheet³</p> <p>Cleaning/Disinfection Process: Routine</p>
<p>Most Responsible Provider (i.e. Physician/Nurse Practitioner) Involvement:</p>	<p>ESPCN Registered Nurse:</p> <ul style="list-style-type: none"> • Diagnosis of skin lesion to be treated with cryotherapy is required prior to the intervention. • For skin conditions other than warts, the nurse may treat them with guidance from MRP on the individualized treatment plan. • Consult with MRP if no improvement after six wart treatments to discuss an alternative treatment plan. • Recourse for clinician communication of unexpected findings and subsequent care coordination has been established between the nurse and MRP. <p>ESPCN Nurse Practitioner: Is the MRP.</p>
<p>Assessment and Treatment Plan</p>	<p>Assess the following:</p> <ol style="list-style-type: none"> 1. Obtain a history of the patient’s condition, including current symptoms, previous skin conditions and methods used to treat including response to treatment, and home interventions. 2. Review patient history to ensure no contraindications or exclusion criteria are present, including history of sensitivity to cold, cold urticaria, Raynaud phenomenon, vascular insufficiency, and/or the patient is unable to stabilize the affected area. 3. Determine the location of the skin lesion to be treated. If the skin area to be treated is on the face or genitals, refer to the MRP. 4. Assess pregnancy status. If the patient is pregnant, refer to the MRP. 5. Assess for signs of infection around the area to be treated. If present, refer to the MRP. 6. Review the EMR to ensure there is a documented diagnosis with an indication for treatment. 7. Assess the skin lesion(s) and surrounding tissue to obtain baseline data and monitor response to treatment, as well as for any signs of infection. This includes the location, size, depth, margins, and surrounding tissue health.²

	<p>Determine Appropriate Treatment Plan: If no contraindications are present, determine if subjective symptoms and examination indicate the need for treatment.</p> <p>Treatment of warts may not be necessary, they may resolve spontaneously, particularly in children. Warts may be treated if they persist or are bothersome to the patient due to pain, functional limitations, the patient is immunosuppressed which increases the risk of resistant warts, or patient-identified social stigma concerns ^{1,4}. Topical salicylic acid 17-40% and liquid nitrogen are first-line treatments for warts with the best evidence of efficacy ^{1,4}. Other considerations for treatment planning include:</p> <ul style="list-style-type: none"> • Hypopigmentation may occur with cryotherapy, and patients with dark skin should be treated with caution.^{1,4} • Periungal warts should be treated with caution to avoid permanent nail damage ^{1,4} • Cryotherapy is often avoided in young children due to pain associated with treatment.^{1,4}
<p>Procedure</p>	<ol style="list-style-type: none"> 1. Explain to the patient the steps of the procedure, what to expect, and the importance of not moving the treatment area during the procedure². 2. If no concerns identified, obtain verbal consent from the patient or legally appointed decision maker for the nurse to perform cryotherapy and document accordingly. 3. Perform hand hygiene and don appropriate PPE. 4. Clean the site with an antiseptic swab and allow to dry. 5. Remove excess keratin either using a scalpel or emery board. If using a scalpel, position it parallel to the lesion and remove thin layers gently by pulling the scalpel across the wart until the patient experiences discomfort or until blood vessels appearing as small dark spots are visible.² If using an emery board/pumice stone/nail file, gently remove the hyperkeratotic tissue. 6. Apply liquid nitrogen to the area being treated. <ul style="list-style-type: none"> ○ If using a cryogun with spray nozzle, position the spray nozzle about 1cm away and spray until the wart and 2mm surrounding tissue appear visibly frozen and disappears after 30-60 seconds ^{1,4}. If the wart is thick or a plantar wart, a second freeze-thaw cycle may lead to improved resolution.^{1,4} For smaller lesions using a smaller tip or cone shield over the lesion to direct the liquid nitrogen.²

	<ul style="list-style-type: none"> ○ If using a cotton tipped swab, dip into the cup of liquid nitrogen for 10 seconds, then apply the tip of the swab on the area to be treated firmly until the lesion and 2mm surrounding tissue are frozen.² Repeat the application process as needed to maintain an appropriate ice field with a new applicator. <ol style="list-style-type: none"> 7. Assess patients' pain, tolerance of the procedure, adverse reactions. 8. Provide education around the process of retreatment.¹ Patient should return for treatments every 2-3 weeks or as indicted by MRP until condition resolves, or 6 treatments have occurred with no improvement necessitating referral back to the MRP for discussion on alternative treatment plan⁴. 9. Provide patient education regarding management and preventative care for their skin condition, as well as post cryotherapy care. Discuss indications for when to return to clinic or seek additional care including signs of infection or extreme pain. 10. If the patient chooses to use topical salicylic acid at home in between treatments to increase efficacy, and if salicylic acid is appropriate for the individual patient, provide education on use: Home cutaneous wart treatment with salicylic acid¹. 11. Complete documentation in the patient's medical record according to CRNA Documentation Standards (2022c) and ESPCN Clinical Documentation Policy. The documentation should include a reference to the ESPCN Protocol and Procedure: Cryotherapy.
References	<ol style="list-style-type: none"> 1. Lippincott Wart Removal, Ambulatory Care 2. Lippincott Cryotherapy, Ambulatory Care 3. Canadian Centre for Occupational Health and Safety, 2025. CCOHS: WHMIS - Safety Data Sheet (SDS) 4. Goldstein, B.G. et al. (2025). Cutaneous warts (common, plantar, and flat warts) - UpToDate 5. Hugh, J, 2025. Minor dermatologic procedures - UpToDate