




Cold and Hot Packs – Physiotherapy


CHECKLIST FOR APPLICATION OF COLD packs OR HOT packs


Ensure APPLICATION OF COLD OR HOT PACKS is appropriate

	<input type="checkbox"/> Ensure application of cold pack is appropriate (see Appendix 1)
	<input type="checkbox"/> Ensure application of hot pack is appropriate (see Appendix 1)

	CHECK SKIN INTEGRITY
	<input type="checkbox"/> Check that there are no wounds/open areas

	CHECK SENSATION
	<input type="checkbox"/> Check that the patient can feel light touch and cold / hot (See Appendix 2)

	APPLY COLD PACK OR HOT PACK
	<input type="checkbox"/> Apply cold pack or hot pack based on relative risk for that patient (see Appendix 3)
	<input type="checkbox"/> Applied cold pack or heat based on 'best practice' (see Elsevier Skills)

	CHECK PATIENT DURING & AFTER REMOVAL OF COLD OR HOT PACK
	<input type="checkbox"/> Ask patient about symptoms during and after application of cold or hot pack
	<input type="checkbox"/> Check patient's skin during and after application of cold or hot pack

Appendix 1 When to and When NOT to Use Cold Packs or Hot Packs

When to Use Cold Packs	When to Use Hot Packs
Up to 72 hrs after acute tissue trauma or post surgery	Not until at least 72 hours after acute tissue trauma or post surgery Chronic conditions
To minimize inflammation	
To reduce pain	To reduce pain
To reduce muscle spasm	To reduce muscle spasm
	To increase flexibility
When NOT to use Cold Packs	When NOT to use Hot Packs
Raynaud's phenomenon	Over known or suspected malignancy
Cold urticaria	Over infected tissue
Cryoglobulinemia	Inflammation (hot and red tissue)
Hemoglobinemia	Heat sensitive skin disease (eczema)
Areas of impaired sensation	Areas of impaired sensation
Areas of impaired circulation	Areas of impaired circulation
Near chronic wounds	Over open wounds/ areas of skin breakdown
Untreated DVT	Untreated DVT
Untreated TB	Untreated TB
Impaired communication/cognition	Impaired communication/cognition
Anterior neck / carotid sinus	Recently radiated tissue
*Use caution when applying over a large area in persons with untreated hypertension or cardiac failure	*Use caution when applying over a large area in persons with untreated hypertension or cardiac failure
	Reproductive organs

Ref: Houghton P, Nussbaum E, Hoens A (2010). Electrophysical Agents: Contraindications and Precautions. Physiotherapy Canada, 62(5) Special Issue.

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Appendix 2: Screening for sensation prior to application of cold packs or hot packs

Screening for Sensation Prior to Application of Cold Packs or Hot Packs

1. Ask the patient:
 - How does your body react to cold or heat?
 - Are there any parts of your body which have trouble feeling cold or hot sensations?
 - Do you have any areas of numbness?
2. Screen the patient for ability to feel light touch
 - As per Mosby
3. Screen the patient for ability to feel cold/heat
 - Apply a cold cloth or warm cloth to the area and ask the patient whether he/she can feel the change in temperature

If, the patient:

- Has had a previous negative response to cold or heat
- Has areas that are insensitive to cold or heat
- Has areas of numbness
- Cannot feel hot or cold or indicate accurately whether it is hot or cold

then, DO NOT apply a cold pack or hot pack. Refer to OT or PT for further assessment.

Appendix 3: Best practice application of cold pack or hot pack

APPLICATION OF A COLD PACK OR HOT PACK

Basic Best Practice

For basic best practice application of a cold pack or hot pack refer to Elsevier.

Important Reminders

- Never use an IV bag as a hot pack
- Do not heat in the microwave unless specified by the manufacturer. The 'uneven' distribution of heating can result in area of much greater heat which can cause a burn
- Never apply cold or heat directly on the skin – use at least one layer of insulation (i.e. 1 layer of toweling)
- Use extra layers of insulation (i.e. more layers of towel) over areas where there is not much muscle e.g. Bony prominences or over areas where motor nerves are more superficial such as the common peroneal nerve at the head of the fibula.

Additional Helpful Information

You may wish to consider the following concepts in modifying your application for a patient with higher relative risk of skin damage after application of a cold or hot pack than another patient:

- 'Wet' cold and hot application is potentially more potent than 'dry'
 - o E.g. Use dry layers of toweling for elderly patients with frail skin; wet layers of toweling maybe OK for younger patients with intact sensation and cognition
- Adjust the duration that the cold or hot pack is applied to the size of the body area and the amount of 'tissue'
 - o Cooling or heating duration for fingers/hands may be sufficient at 5 to 10 minutes but the thigh may require 20 minutes
 - o Recent research has shown that frequent and brief applications are preferable e.g. 10 minutes intervals every 2 to 3 hours is potentially more effective than once a day for 30 minutes
- Monitor for physiological signs of systemic reaction
 - o Elderly patients may have more difficulty regulating body temperature

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