Cold Intolerance

A guide for people with polio or Post Polio Syndrome (PPS)

today's support and information network

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Introduction

Cold intolerance is a common problem for people who have had polio and is something that is not always understood.

This factsheet explains cold intolerance and its relationship with polio and offers practical suggestions for how it may be managed.

How can I recognise cold intolerance?

If you have had polio, cold intolerance can particularly affect your feet and hands, though some people may feel cold all over. As well as the sensation of cold, the skin will often be cold to the touch and the feet may even turn purple.

It is easy to assume that your cold intolerance is caused by Post Polio Syndrome (PPS). You should check with your doctor that there are not any other problems that could lead to similar symptoms, such as circulatory complaints or an underactive thyroid.

Why do I feel so cold?

Understanding why cold intolerance happens may help you to manage it better. It may be useful to consider how the body usually deals with cold, and how polio may affect this.

In a healthy person, when the brain registers that the body is in a cold environment, it will send a message to the capillaries (tiny blood vessels) near the surface of the skin to contract or tighten. This reduces the surface area of the capillaries and therefore the amount of heat they lose to their surroundings. As heat loss is slowed down, the body is able to stay warm for longer.

For some people with polio, this mechanism may have been damaged by the poliovirus. This damage could be in the hypothalamus (the area of the brain that, amongst other things, deals with temperature control), so the message to contract is not sent correctly. The poliovirus may have damaged the sympathetic motor nerves of the spinal cord (part of the autonomic nervous system that controls involuntary muscles, ie those not under conscious control), so that the message to contract is not properly
delivered. Either way, the result is that the capillaries do not contract and heat continues to be lost more quickly than it should be.

Like central heating, blood circulating around the body helps to control its temperature, by moving between the warmest areas in the centre (or core) of the body to the coldest in the feet and hands (or extremities). In this way the whole body is ideally kept at a more or less uniform temperature, keeping the core temperature up on a cold day by minimising heat loss from the extremities.

Muscles throughout the body form part of the pumping mechanism to keep the blood circulating. The muscles contract, squeezing their neighbouring blood vessels, which helps to keep the blood moving. In people with polio some muscles may be weaker or have wasted, reducing their ability to assist in the blood pumping process. Blood, therefore, has more time to wait around in extremities, all the time losing heat. By the time it makes its way back to the core of the body, it is cooler than it should be.

Cold hands and feet have less strength and dexterity than at their ideal temperature. This can be particularly problematic for people who have had polio. Your hand or foot may have to work harder than usual to get things done, which can increase fatigue and there is a risk of accidents if they fail to respond as you expected.

What can I do?

You can manage cold intolerance by keeping your environment warm and by wearing the right clothing.

Your home

You may want to install central heating if you do not have it already, improve the insulation of your house or have your windows double-glazed. Warm Front may be able to help with this. (see contact details at the end of this factsheet)

Small alterations can make a big difference. These include adding draught excluders to doors, and making sure that they are kept shut so that heat doesn’t ‘leak’ into areas you don’t need to keep so warm, such as hallways and landings. Thick curtains at night can help to retain heat that would otherwise be lost through
Rearranging the furniture so that your chair is away from the door or window will protect you from draughts. If you don’t find your central heating sufficient when you are less active, you might want to consider using a small portable heater in addition.

Extra heating around the home can of course raise the cost of fuel bills. Help with heating costs is available to people over 60 years old from the Government’s annual Winter Fuel Payment.

If you are under 60 years old and on a means-tested benefit or low income, The Fellowship runs its own annual heating grant scheme. Application forms are usually sent out with the November issue of the Bulletin and grants paid at the end of January/early February.

The Fellowship is also able to advise about organisations that help people meet arrears of energy charges and other household bills and costs. (see contact details at the end of this factsheet)

**Out and about**

When out and about, try to avoid places you know to be cold or add an extra layer of clothing if you can’t. Try to avoid air conditioning if possible, asking to be seated away from it in restaurants or theatres. If you are meeting someone, think about choosing an indoor meeting place such as a shopping mall rather than waiting around outside in the cold, such as outside a station.

**Clothing**

The best way to keep warm is not one big heavy garment, which may make mobility more difficult due to its weight, but by layering the right clothes. This allows for changes in temperature- if it gets warmer you can remove an outer layer.

Layering clothing should begin with a base layer that sits next to the skin, covering as much of the body as possible. Examples are a long-sleeved vest and long johns or a light long-sleeved jumper and tights. The mid-layer (or layers) should be thicker, to trap as much warm air next to the body as possible – modern materials such as fleece are ideal for this as they are both warm and light.
The outermost layer, for use outdoors, should be both wind and water proof. Jackets and coats sold at sports and outdoor specialist shops are more efficient than traditional garments, as they are designed to keep heat in and moisture and wind out without restricting movement or adding extra weight.

As an average of 20% of body heat is lost through the head a warm hat can be an excellent investment. Gloves and footwear are essential, look for those that are described as thermal and if possible waterproof as getting wet will speed up the cooling process. Again, as with coats and jackets, modern materials are often better than traditional ones.

A scarf will help to keep the neck warm and fill that gap between coat and hat. In warmer weather a lighter scarf can help to prevent a chill from any draughts, which is particularly important if you have neck or shoulder problems.

At night consider not only warm nightwear, but also a warm dressing gown and slippers or other footwear. If you can, use them whenever you need to get out of bed as this will help to keep in the warmth your body has built up in bed. It is particularly important if you are prone to falls, as it will keep you warm while you get up or wait for someone to help you up.

You may wish to contact the Disabled Living Foundation, for a copy of their factsheet, ‘Dressing for warmth’. They are also able to provide advice and information about all sorts of equipment and where to get it. (see contact details at the end of this factsheet)

There are many pieces of equipment to help you keep warm, from tiny hand-warmers that can be tucked into your gloves to electric blankets. Be cautious with these items and make sure you don’t burn your skin. For example, use a specially designed cover if you use a hot water bottle and never put it straight against your skin without a cover.

Wheat bags, cloth bags full of wheat grains that are heated briefly in the microwave, are generally safer than hot water bottles as there is no need to handle hot water, worry about leakages or any cap to try to screw into place. They come in various shapes and
sizes, may be draped over the body as needed and are available with soothing essential oils, such as lavender.

If you can, always warm the bed before getting in. You could use an electric blanket or a couple of wheat bags or hot water bottles.

If you are going to be sitting for a while try to put your feet up. By raising your legs you are helping your circulation, as it no longer needs to fight against gravity to get blood back from your feet to your heart. A light travel blanket draped over your lap can also make a difference.

Warm drinks are a pleasant help towards the process of keeping warm and soup can be both nourishing and comforting.

**Can my doctor help?**

There is some evidence to suggest that techniques such as biofeedback (training the body to respond in certain ways to conscious control) or relaxation and visualisation help to increase blood flow in PPS and other disorders that can cause cold intolerance, such as Reynaud’s disease. These techniques are usually taught by a psychologist or psychotherapist and can also help with other problems such as high blood pressure or irritable bowel syndrome. We’ve all heard of ‘mind over matter’; these demonstrate this to a positive effect. As no drugs are used there are none of the accompanying side effects that can affect people with polio. Your doctor may be able to recommend a practitioner and in some areas this therapy is available on the NHS. Otherwise you can contact the Institute for Complementary Medicine who will be able to check the British Register of Complementary and Natural Medicine for details of registered therapists in your area.

A last possibility is a drug called Nifedipine, which is primarily an angina medication, but is also used for Reynaud’s disease. As with most drugs, this carries the risk of side effects, most commonly headache, dizziness and fatigue, flushing and ankle swelling. It may also react with any other medication you are taking. It is best to try other ways of keeping warm before opting for drug treatment and always discuss your options with your doctor.
Useful Contacts

**Warm Front (England)**
Phone: 0800 316 2805  
Website: www.warmfront.co.uk

Warm Front is a government-funded scheme, working towards warmer, healthier and more energy-efficient homes. If you own your own home or rent it from a private landlord and receive a qualifying income or disability benefit, you may be eligible for a Warm Front grant towards gas, electric or oil central heating, loft or cavity wall insulation and draught proofing. Warm Front grants are available in England only; other schemes operate in Scotland, Wales and Northern Ireland.

**Winter Fuel Payment Helpline**
Phone: 08459 15 15 15

**Disabled Living Foundation (DLF)**
380-384 Harrow Road, London W9 2HU  
Helpline: 0845 130 9177 (local call rate number)  
Email: helpline@dlf.org.uk  
Website: www.dlf.org.uk

**Institute for Complementary and Natural Medicine (ICNM)**
Can-Mezzaine, 32-36 Loman street, London SE1 0EH  
Phone: 020 7922 7980  
Email: info@icnm.org.uk  
Website: www.icnm.org.uk

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