

## Are Bandages Useful For Treating Ichthyosis?

When I was asked to write an article on bandaging for the ISG I had anticipated presenting you with some evidence to answer the question I set above. However, as my research has proved futile, in that there is no evidence to be found, the following information is based on my own experience in caring for patients with ichthyosis at Birmingham Children's Hospital.

I thought I had better begin by explaining what type of bandages I'm referring to. Tubular bandages are colour coded for size with a red, green, blue, yellow and beige line down the centre (red being the smallest, beige the largest.) and are available in 1 and 5 metre lengths. 10 metres rolls are available only from hospital. They are made from viscose, polyamide and a small amount of Elastane which ensures that they are close fitting to the skin. They can be used on individual limbs or a suit can be made to cover the whole body but this usually only applies to babies under 6 months old as ready made garments are now available. There are a range of ready made, full sleeved vests, tights, leggings, socks, mittens and even balaclavas which does make life a little easier.

Despite there being no research available with regard to the use of bandages with ichthyosis it has been well documented that occlusive (covered) techniques using bandages or garments have really benefited children with eczema. There are two techniques used, wet or dry wrapping. If people have heard of bandaging with regard to skin conditions it is usually the term wet wrapping they are familiar with but what does it mean?

Wet wrapping is when a two layered (wet & dry) cotton body suit is applied over creams. After applying emollient liberally, a warm, wet tubular bandage or garment is applied. This is followed by a dry layer. The advantage this has for eczema is that the gradual evaporation cools the skin and relieves the intense itch. It also makes it harder for children to scratch.

Dry Bandaging is when one or two layers of dry tubular bandage or garment are placed over a liberal amount of emollient.

Both techniques help greasy moisturiser stay in place rather than being absorbed and ruining clothing. This is exactly what patients with ichthyosis require. As itch is rather less of a problem with ichthyosis, at Birmingham Children's Hospital we use the dry bandaging technique. Having nursed children with Harlequin ichthyosis and babies born with a collodion membrane we have found that we have had best results from using two layers of dry bandaging. We apply a liberal amount of an emollient such as 50:50 white soft paraffin/liquid paraffin or emulsifying ointment followed by a layer of a tubular bandage suit and then we repeat the process a second time.

Depending on the severity of the ichthyosis, emollient is then reapplied at least every 2-3 hours, either on the top layer of tubular bandage, or between the two layers by peeling back just the top layer. Suits are changed every 24 hours following a bath. Parents continue this regime at home until the condition of the skin improves enough to use just a single layer.

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Children with the most severe type of ichthyosis, such as Harlequin and Non bullous ichthyosiform erythroderma, may continue to wear their suits 24 hours a day. Small children are happy to wear their bandages because they feel more comfortable in them. Most are happy to wear them even for school. Some parents have even dyed the bandages to match their child's outfit for special occasions.

Some children with ichthyosis prefer to wear their bandage suits just at night to hydrate their skin or to use tubular bandage just on stubborn areas to keep them supple, and to prevent tautness and cracking.

There are disadvantages in that some children can overheat because there is a loss of the ability to sweat with some types of ichthyosis. If garments are used other layers of clothing, bedding may need to be modified when taking into account the temperature indoors/outdoors or the level of activity the child is involved in. Another disadvantage is that if a child is prone to skin infection bandages may be detrimental as combined with thick, greasy emollient they provide a warm moist environment which bacteria love so bandages should never be used on skin that is infected.

#### Advantages

- Retain moisture
- Skin is comfortable and less taut
- Avoids ruining clothing
- Can be used on whole body or part of a limb

#### Disadvantages

- Overheating
- Infection

#### Practical tips!

Single tubular bandages should only be used once then discarded.

Garments are washable but remember to soak them in a detergent before machine washing to try to extend the life of your washing machine which, no doubt, some of you will already have had to replace.

**WARNING Skin products containing white soft paraffin and emulsifying ointment are easily ignited with a naked flame or a cigarette.**

In conclusion, I believe bandages are beneficial for treating adults and children with ichthyosis and would go as far as to say that they are essential for treatment of severe forms of ichthyosis. I would recommend that bandaging should be discussed with a GP, Dermatologist or Specialist Nurse and taught by a health care professional, who can also provide ongoing support in the community or in a dermatology out-patient department.

Bandages and bandage suits can be prescribed by your GP. As a rough guide, most children with severe ichthyosis will require 6 suits per month.

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People who care about ichthyosis

The following companies make suitable products and include adult sizes:

Elasticated Viscose Stockinette

Lightweight plain-knitted elasticated tubular bandage.

Acti-Fast®, Sizes; 3.5cm red line (small limb), length 1m; 5cm green line (medium limb), length 1m, 3m & 5m; 7.5cm blue line (large limb), length 1m, 3m & 5m; 10.75cm yellow line (child trunk), length 1m, 3m & 5m; 17.5cm beige line (adult trunk), length 1m (Manufacturer Activa)

Comfifast®, Sizes 3.5cm red line (small limb), length 1m; 5cm green line (medium limb), length 1m, 3m & 5m; 7.5cm blue line (large limb), length 1m, 3m & 5m; 10.75cm yellow line (child trunk), length 1m, 3m & 5m; 17.5cm beige line (adult trunk), length 1m (Manufacturer Synergy)

Comfifast® Easy Wrap Suits, Sizes 6-24 months, 2-5 years, 5-8 years, 8-11 years, 11-14 years; tights (pair) 6-24 months; leggings (pair) 2-5 years, 5-8 years, 8-11 years, 11-14 years; socks (pair) up to 8 years, 8-14; mittens (pair) up to 2-4 months, 2-8 years, 8-14 years; clava 6 months-5 years, 5-14 years (Manufacturer Synergy)

Coverflex®, Sizes 3.5cm red line (small limb), length 1m; 5cm green line (medium limb), length 1m, 3m & 5m; 7.5cm blue line (large limb), length 1m, 3m & 5m; 10.75cm yellow line (child trunk), length 1m, 3m & 5m; 17.5cm beige line (adult trunk), length 1m (Manufacturer Hartmann)

Tubifast®, Sizes 3.5cm red line (small limb), length 1m; 5cm green line (medium limb), length 1m, 3m & 5m; 7.5cm blue line (large limb), length 1m, 3m & 5m; 10.75cm yellow line (child trunk), length 1m, 3m & 5m; 17.5cm beige line (adult trunk), length 1m; vest, 6-24 months, 2-5 years, 5-8 years, 8-11 years & 11-14 years; tights (pair) 6-24 months; leggings (pair) 2-5 years, 5-8 years, 8-11 years & 11-14 years; socks (pair); gloves (small, medium or large adult, medium or large child) (Manufacturer Mölnlycke/Medlock)

Other companies also supply similar bandages and garments. See the Pharmaceutical and Medical Companies section on the ISG website for more information.

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