

Skincare

Care and protection of your most vital asset

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Contents

Introduction	3
Structure of the skin and natural skin protection	3
Barrier function	4
Sensation	4
What happens to the skin during incontinence	5
How to assess your skin	6
Skin Infections	7
Good skin hygiene	7
Skin protection	8
Application	9
Further Information	9
Bladder & Bowel Community Just Can't Wait card	9



Introduction

Maintaining healthy skin is a challenge for most people but it is even more important for anyone affected by bladder or bowel control problems that result in incontinence. Sometimes the skin can become irritated or broken, which can often be painful and distressing, however it is avoidable and preventable.

The skin is the largest organ of the human body providing a barrier to protect the internal organs from the environment. The aim of this booklet is to help you understand your skin and how to protect it from damage.

Structure of the skin and natural skin protection

The skin consists of three main layers, the epidermis, the dermis and the hypodermis (subcutaneous layer of fatty tissue). The epidermis is approximately 0.1mm thick and provides the main defence against external damage. The dermal layer varies in thickness from around 5 mm in areas such as the back and thighs, to as little as 1 mm in the skin of the eyelids.

The dermal layer contains collagen, blood vessels and sweat glands. The collagen within the dermal layer provides the skin with strength and flexibility. Ageing increases the risk of skin damage as cell replacement slows and the skin becomes thinner and more easily damaged. The elasticity of our skin decreases with age and exposure to the sun.





Barrier function

The epidermis forms a barrier to protect the internal organs from physical and chemical attacks from the environment and to maintain a well-balanced water content within the skin. The elasticity and suppleness of the skin is dependent on its water content.

The epidermis contains keratin and natural moisturisers which help to bind water. If the skin is washed excessively with soap it loses its capacity to bind water becoming dry and cracked. This layer also provides protection from the penetration of water soluble substances.

Keratin in the epidermis and oil produced by the sebaceous glands help to make our skin waterproof. This means we don't go soggy in the bath or dry up in the sun!

Millions of microorganisms live harmlessly on the skin and in the air around us. The skin's surface has an average pH of 5.5 making it slightly acidic, this protective acid coating prevents infection from entering the body as bacterial growth is inhibited. This layer also provides protection from penetration of water soluble substances.

Sensation

Many sensory nerves are contained within the skin. These sensory nerve endings serve a protective function by causing the body to react by reflex to painful or unpleasant stimulus, protecting the body from further injury.

Levels of pressure can also be detected and transmitted to the brain so that if we are uncomfortable it encourages movement allowing increased blood flow to the affected area. When you are sitting in a chair, after a length of time your skin will sense the pressure from the seat and you will feel uncomfortable, this makes you change position. This regular movement prevents pressure damage to the skin.

When urine and faeces come into contact with the skin a chemical reaction occurs on the surface. The combination of urine and faeces causes irritation, skin breakdown and excoriation (the destruction and removal of the surface of the skin) to the skin's surface, this triggers the nerves within the epidermis causing pain and discomfort. Damage to the nerve endings can lead to a loss of sensation, meaning that the individual is unable to detect pressure. The combination of excoriation from incontinence and damage associated with pressure and friction can lead to further skin breakdown and bacterial proliferation (rapid multiplication).

The risk of skin breakdown increases with age, physical frailty, reduced mobility and incontinence. Incontinence, with its combination of moisture, friction and bacteria can set up a cycle which leads to skin breakdown.



What happens to the skin during incontinence

When people experience incontinence they wash more frequently to eliminate odour and promote comfort but also to remove the harmful agents contained in urine and faeces. However, this increased washing leads to the skin becoming more alkaline and so its ability to protect against irritant substances is compromised.

Faeces contain digestive enzymes which are normally deactivated within the bowel. When faeces and urine mix a shift in the pH occurs reactivating the enzymes within the faeces which can then attack the skin.

A warm soggy environment allows delicate skin to become macerated. In turn, the macerated (softening or wetting of the skin owing to retention of excessive moisture) skin becomes more vulnerable to irritants such as those within urine or faeces and may break down. Organisms such as Candida (thrush) or bacteria can then infect the skin.

Prolonged contact between skin and urine can result in the development of an irritating skin rash or excoriation called incontinence dermatitis. Fortunately, there are some simple things that you can do to look after your skin which are not complicated and will help prevent you from becoming uncomfortable.





How to assess your skin

Your skin should be assessed at least daily, however if you are experiencing episodes of incontinence the skin should be assessed every time you wash to check for signs of breakdown or infection. You can tell a lot from simply observing the skin on a regular basis. Table 1 looks at the main areas.

Colour of the skin	Is the colour of the skin normal for that person? What colours can you see? - red, purple, brown etc. Are there any blemishes present - scars, rashes, sores?	Changes in colour may indicate pressure damage or infection, and sore areas may indicate incontinence dermatitis.
Texture	Does the skin feel dry or moist? Is it papery, or very thin? Is there moisture due to sweat, urine or leakage from a wound? Is the skin becoming soggy and white (macerated)?	If the skin is dry it is more prone to damage and requires a moisturiser. The presence of urine on the skin may indicate that the continence pad needs changing more frequently, is an incorrect absorbency or an incorrect barrier cream is being used preventing the pad from working properly.
Integrity	Is the skin broken?	Broken skin should be reported to a healthcare professional so that it can be fully assessed and treated with an appropriate dressing or barrier product.

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Adapted from Morison et al (1997); Newton and Cameron (2003)



Skin Infections

For people who are incontinent, the skin can also be prone to fungal skin infections caused by yeasts. These are most commonly caused by Candida species, particularly Candida albicans. These Yeasts can trigger infections both on the skin or the whole of the body. Secondary infections can occur where there has been rubbing of the skin.

A number of factors increase the potential of an individual becoming susceptible to infection, e.g. moisture, temperature and skin pH. Candida species are widely distributed in the environment and are a normal part of the flora of the skin that may become infective when the skin condition changes. All fungi thrive in a moist warm atmosphere with inadequate ventilation, such as may occur in skin folds under the breasts or in the groin.

The damp warm environment within an incontinence pad encourages the growth of bacteria if not changed regularly. These bacteria break down to form ammonia which causes skin irritation. Rubbing of the skin against the pad can lead to maceration encouraging secondary candidal infection. This infection causes symptoms such as burning and severe itching. A skin swab may be required to confirm the presence of candidal infection.

Good skin hygiene

The principle of preventing incontinence related skin damage is to protect the skin from urine and faeces by using a barrier cream, and by using appropriate methods to cleanse the skin following an incontinent episode.

Frequent washing of the skin with soap and water leads to dryness and decreases the skin's integrity. A normal bar of soap has a pH around 9.5 which is much higher than the skin's natural acidity but in more recent years manufacturers have developed "soapless" products which are much less irritating.

To reduce the risk of skin damage attributed to incontinence, the use of pH balanced cleansers are more appropriate than soap and water. Cleansers that incorporate emollients and barrier products can be effective in maintaining skin health.

Rubbing or using a rough towel to clean the skin can damage delicate skin and soft disposable cloths may be more suitable. It is important to ensure the skin is dried well by gently patting rather than rubbing. Skin creases should be dried thoroughly, especially the lower skin folds of the stomach and genital area. Talcum powder is not recommended as this obstructs the pores and prevents the skin from functioning at its optimal level.

If an individual is prone to dry, itching skin an emollient should be used twice a day. Specialised barrier products have been developed to protect the skin from the effects of urine and faeces as well as moisturising the skin, thereby reducing the effects of skin dryness.



Skin cleansing and the application of a barrier product to protect the skin is one part of managing incontinence and should be seen as part of a series of interventions aimed at keeping the skin barrier intact.

Remember, keeping the skin clean and dry is the most effective way to minimise the factors that contribute to skin damage such as exposure to moisture and irritants.

Skin protection

Barrier products should be used to protect the skin from urine and faeces, and can be in the form of a cream or film. Barrier preparations often contain water repellent substances and can be used on intact skin to prevent skin breakdown. Many can also be used as a treatment for incontinence dermatitis, it is worth checking with your pharmacist or healthcare professional as to which may be most suitable for you.

Creams are usually silicone, titanium or zinc based, and many people have their favourite. Some people can be allergic to certain constituents of particular products and it is important to check the ingredients of a particular product even if it has a similar name to one previously used.

Types of barrier products

Barrier products for managing and preventing incontinence dermatitis and skin breakdown can be put into three broad categories.

Generic skin protectors

Generic skin protectors include those containing zinkoxide and paraffin. These products repel moisture from the skin surface. Zinc oxide preparations are suitable for people who are sensitive to lanolin (wool fat). If a person is sensitive to peanut oil (but lanolin allergy is not suspected) then a more suitable choice of barrier cream might be needed.

If the person has very sensitive skin and a history of allergies then it might be best to use a hypoallergenic product to protect the skin.

Care must be taken with using some products as they will require more frequent application and can also interfere with the absorbent capacity of continence pads. Some products can also rub off onto clothing and bedding.

Barriers

Some products are specially designed to protect the skin of individuals who are incontinent and provide a barrier without additional antibacterial or anti-yeast components. These products come in a variety of formats including, sprays, wipes and creams. When applied to the skin they form a breathable, transparent coating on the skin and can last up to 72 hours.



Products containing dimeticone (silicone) leave a layer of water repellent substance on the skin's surface. These products don't require re-application as frequently, as they are absorbed into the skin.

Antibacterial and anti-yeast products

Many localised fungal infections such as Candida (thrush) can be treated with topical preparations. These products contain antibacterial or antifungal agents designed to protect skin affected by incontinence.

Barrier products should not be used on infected skin, infections should always be treated independently and cleared up first.

Advice on the correct type of skin care product can be obtained from a healthcare professional such as the district nurse or practice nurse at your GP practice or from a specialist continence nurse.

Application

The method of applying a barrier product will depend on the product itself so it is important to follow manufacturer's guidelines. However some general principles apply.

- The skin should always be cleansed and dried thoroughly with special attention paid to any skin folds.
- Products should never be over-used, i.e. too much applied to the skin.
- Some products may cause caking effect making it difficult to cleanse the skin on the next incontinent episode.
- Products should be applied so that the skin can still be seen.
- Perfumed products should be avoided for individuals with sensitive skin.

Further Information

If your skin does not improve after using any kind of barrier cream or skin product, please contact your local continence advisor, GP or local health professional.

Bladder & Bowel Community Just Can't Wait card

A big problem with an overactive bladder is finding a toilet in time. Bladder & Bowel Community provide the original and most recognised toilet card, designed for people living with a bladder or bowel condition who may need to access a toilet at short notice. Get your Just Can't Wait Card online as a FREE digital card or purchase a traditional plastic card - apply via bladderandbowel.org



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