

Caring for Easily Injured Skin

Preventing and Managing Moisture-associated Skin Damage

Wounds Canada has developed this simple guide to help patients and their care partners prevent and care for moisture-associated skin damage. It provides guidance on things to do to help prevent this condition and recognize the signs of any complications if they do occur.

What is moisture-associated skin damage (MASD)?

Moisture that stays on the skin too long can put the skin at risk for breakdown in the form of burning, rashes and open sores.

Sources of moisture include:

- Urine and/or stool: Called *incontinence-associated dermatitis* (IAD) or, more commonly, *diaper rash*
- Sweat, saliva or mucous: Called *intertrigo* or *intertriginous dermatitis* (ITD)
- Fluid (drainage) from wounds: Called *periwound MASD*
- Ostomy leakage: Called *peristomal MASD*
- Moisture on a foot: Called *immersion foot* (IF) or *trench foot* (after soldiers in WWI who had to stand for days or weeks in wet trenches)

The result of skin being in contact with too much moisture for too long is generally the same regardless of the type (see the table on page 2): red, shiny, tight or swollen skin that may or may not have broken skin. People with MASD often complain of burning or pain in the affected area.



Periwound moisture-associated skin damage

Disclaimer: The content in this resource is for informational purposes only and is NOT a substitute for professional medical advice, diagnosis or treatment. You should always consult with your health-care professional before starting any new treatment or changing or stopping an existing treatment.

Table 1: Difference Between MASD Types

MASD Type	Appearance	Common causes
A. Incontinence-associated dermatitis (IAD)		IAD is skin damage that occurs when the fluids of incontinence (the inability to control bowels and/or bladder) stay on the skin. Skin damage is generally located in the groin and on the buttocks and thighs. Frequent stools or diarrhea may also cause skin damage in this area.
B. Intertriginous dermatitis (ITD) or intertrigo		ITD occurs in areas where skin is in direct contact with other skin, usually in skin folds such as under arms, in neck folds, under breasts or in the groin. Wearing non-breathable fabrics can contribute to the moisture problem.
C. Periwound MASD		Periwound MASD may be caused by excessive drainage (fluid) from a wound or from irritation of products applied to or around the wound itself. The wrong type of wound dressing may cause this problem.
D. Peristomal MASD		Peristomal MASD may occur around a stoma, an opening in the body created during a surgical procedure called an ostomy. (The new opening may be permanent or temporary.) There are different types of ostomies. Urinary or fecal stomas remove waste from the body and may cause MASD due to poor application or seal of an appliance (pouch). MASD may also occur around tracheostomies (an opening in the neck for airflow to the lungs), which may leak mucous. Gastrostomies create openings into the stomach to deliver nutrients and may leak fluid that can cause MASD. Tracheostomy devices and gastrostomy tubes can also cause skin irritation.
E. Immersion Foot (IF)		If a foot is wet for too long because of moisture—even sweat—that doesn't dry, the skin can break down. Footwear made of materials that don't “breathe” such as rubber boots or plastic shoes can cause this problem.

Photo compliments of LM Parsons

How can MASD be prevented?

Prevention of MASD is all about protecting the skin from moisture, whether that moisture is from urine and/or stool, sweat, saliva, mucous, wound drainage, ostomy fluid or water. The methods used depend on the type of MASD you are trying to prevent:

A. Incontinence-associated skin damage (IAD)

1. Immediately after an incontinence event, remove soiled clothing or incontinence pads or products.
2. Clean the skin right away with warm, soapy water or a skin-cleansing solution. Pat dry.
3. Moisturize the skin and apply a skin barrier to protect the skin. If zinc-based products are used, do not scrub to remove excess zinc—it is not necessary to remove all of the zinc with each change. Apply product more often if the person has frequent loose stools.

Incontinence products can play a big role in prevention and management of IAD. These days, absorbent products wick leakage away from the skin and help to keep it dry. This is great for babies and others who can't control their bowel and/or bladder.

However, depending on the situation, your health-care provider may suggest the use of a bedpan or commode chair for anyone who has some mobility and/or requires assistance to move. In some cases a bladder catheter may be recommended; there are three types (indwelling, intermittent and external) and the one required will be recommended by your health-care professional. There are also fecal containment products, which again can be recommended by your health-care professional.

Arrange for regular visits to the toilet (a scheduled toileting routine) to prevent incontinence events.

B. Intertriginous dermatitis (ITD):

People whose skin is in constant contact with sweat, saliva or mucous can take several steps to prevent skin irritation, especially where skin-on-skin contact is normal (armpits, under neck and breasts, in groin).

- Wear loose-fitting, lightweight clothing of natural fabrics or athletic clothing that wicks moisture away from the skin.
- Wear supportive garments, such as brassieres, to reduce skin-on-skin contact.
- At least once a day, wash and dry the moist areas in all skin folds such as under the neck, under arms, under breasts, in the groin and anywhere else skin contacts skin. Avoid the use of talc, cornstarch-based powders and barrier creams in these areas.
- Avoid tucking bedsheets, cloths, towels, into these areas as these items may trap moisture and hold it against the skin. Your health-care provider may be able to source a moisture-wicking material to place in these at-risk areas.

C. Periwound MASD:

To prevent damage to the skin around a wound:

- Work with your health-care professional to make sure the cause of moisture coming from the wound is addressed. The cause of an increase in wound drainage may be increased trauma or re-injury or infection. Moisture can usually be addressed with either a more appropriate wound dressing or additional treatments such as an antibiotic.
- Protect the skin around a wound (periwound) with a skin barrier, a film or hydrocolloid dressing. Your health-care provider may be able to help you source the right products.

D. Peristomal MASD:

- Make sure the cause of moisture is addressed with either further instruction on appliance application or changing to a more effective ostomy appliance. It is best to consult with a specialized health-care professional such as a nurse specialized in wound, ostomy and continence (NSWOCC).
- Protect the skin around a gastrostomy or tracheostomy with a skin barrier and an absorbent dressing.

E. Immersion Foot (IF):

If you have really sweaty feet, feet that often spend long periods of time in wet conditions, or wear footwear that keeps moisture in, you may be at risk for immersion foot. The following tips will help you reduce your risk.

- Use breathable material for socks and shoes.
- If you normally do activities that require walking in wet conditions, make sure you wear waterproof footwear and then remove your footwear immediately after finishing the activity.
- Look at your feet every day to make sure they are not damaged.

General Skin Care:

Regardless of the source of the moisture, if you or someone you are caring for is at risk for MASD, daily skin cleansing and inspection are key to preventing skin breakdown. Look for signs of moisture daily and gently cleanse at-risk areas with lukewarm water, a mild pH-balanced soap and a soft, clean washcloth (a no-rinse skin cleanser works too). Rinse well and gently pat dry with a clean, soft towel (do not rub the skin with the towel). Be sure to dry well between toes and beneath skin folds.

How do I treat moisture-associated skin damage?

If you or your loved one does get moisture-associated skin damage, the first thing is to eliminate the cause of the problem so the skin stops being irritated and it has a chance to heal. If the irritation is mild, keep the area clean and dry. Within a day or two, you should see some improvement. Most mild skin damage caused by moisture can be treated this way. However, there are times when you may need to call on a health-care professional for help. If any of the following occur, it's time to call in a professional.

- If the steps above fail to improve the irritated skin
- If your skin is very itchy or if scratching is making it worse
- If you can't control the cause of the moisture damage
- When there is an increase in moisture, pain, odour, redness or wound size

Your health-care professional will assess the skin and provide recommendations to manage the source of the moisture and heal the skin. They may recommend one of the many topical products found on drug store shelves.

CAUTION:

Organisms such as yeasts, fungi and bacteria are drawn to dark, warm, moist areas and are often common where MASD is present. These infections usually need to be treated by a health-care professional.



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