

Skin Integrity Workshop

Diabetes Technology

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In your experience what are the skin issues,
people experience using diabetes technology?

Common issues with skin

- **Practical**

Does not stick

Falls off easily - heat and climate

Pain on insertion

Bleeds at insertion site

Chronic dryness

Leaves prolonged red marks

- **Clinical**

Hypersensitive reactions

Allergic reactions

Contact dermatitis

Pressure induced sensor attenuation (PISA)

Infections

Blistering

Scarring

Lipodystrophy

These are barriers to continuing diabetes tech

Discontinuation can impact glycaemic control, physical & emotionally negatively

What early considerations, are important to promoting skin integrity?

Prevention & Assessment Skin

Initial

Undertaken skin assessment;

Visual assessment of CGM and cannula sites

nb: lipohypertrophy

Nutrition and hydration

Assess risk of adverse reactions prior to new tech – history allergies or sensitivities

Timely and appropriate information preventative issues

Early treatment

Ongoing

Review skin health at all consultations

Promote health skin practices (gentle removal and moisturising)

Choosing Sites

- Recommended sites - flat areas
- AVOID:
 - 2 inches @ belly button
 - Natural bends
 - Irritation from clothing
 - Hardened areas; scars, stretch marks, tattoos, lipo hypertrophy
 - Oil based lotions
 - Overused cannula and CGM sites
- Promote skin health
- Correct preparation
- Site rotation – reduce trauma and recovery time
- Do not extend sensor life

What skin preparation do you recommend?

Skin Preparation

- Body hair trimmed
- Wash and dry skin gently but thoroughly (pH neutral soap)
- No oils or lotions
- No alcohol or abrasive wipes
- Sensitive deodorant spray (15 mins before application to allow to dry)
- After application secure edges
- Recognised skin preparation only

Skin and Barrier wipes

Under tapes to protect skin

Skin Adhesive Wipes

- Aid securing the sensor and preventing early detachment
- Apply using bullseye method

Skin Tac– aids adhesion, latex free, hypo allergenic
(often used with Tac Away) *(Torbot Group/Mason Labs)*

IV Prep– prepare , aids adhesion, good in humid climates or
people who sweat *(Smith and Nephew Inc)*

No Sting Skin Prep– protects from irritation
between skin and adhesive *(Smith and Nephew Inc)*

Skin Prep - protects from adhesive irritation between skin and
adhesive *(Smith and Nephew Inc)*



Securing Sensors

- Promote sensor life and prevent falling off
- Taping methods

Infusion set tape - Clean and dry skin, insert sensor, over ...
infusion Set IV3000™ tape

Sandwich Method – Clean and dry skin, apply clear adhesive dressing to skin, apply sensor, cover with another clear adhesive as required

Blanket Method – Clean and Dry skin, insert sensor, cover with tape such as StayPut or HyperFix

Straps or bands specifically for products can be purchased



Tapes

Hypafix™ Tape

by BSN Medical

Non-woven fabric made from white polyester material and coated with hypoallergenic adhesive on quick-release backing paper.

Note: Not available to purchase through Medtronic.

IV3000™ Tape

by Smith & Nephew, Inc.

Transparent moisture responsive film dressing.

Infusion Set IV3000™ Tape

by Smith & Nephew, Inc.

Transparent tape dressing with a customized design to fit around the Quick-set™, Silhouette™, Sure-T™, and Mio™ infusion sets. Made with the same adhesive and film as IV3000™ Tape.

Mastisol® Adhesive

by Ferndale Laboratories, Inc.

Clear, non-irritating liquid adhesive. Consider using Detachol® Adhesive Remover with this product.

Polyskin™ II Transparent Dressing

by Covidien

Moisture Vapor Permeable transparent tape to keep the skin dry and more comfortable at the insertion site.

StayPut™ Patch

by StayPut™ Medical, LLC

These overlay patches are water-resistant, breathable and flexible to help keep medical devices secured to the body.

Tegaderm™ HP Transparent Film Dressing

Clear tape dressing that adheres well when exposed to moisture.

How do people requiring wipes and tapes obtain them?

What challenges does this pose for them ?

Is there anything we can do?

Adhesive removal

- Aid gentle and easy removal 'slow and low'
- Prevent trauma of the skin during removal
- Post care

Baby Oil

Chapstick

Tac Away – wipes *(Torbot and Masons Lab)*

Detachol Adhesive remover – liquid *(Ferndale Lab inc)*

UNI-SOLVE Wipes *(Smith and Nephew)*

- After care - Daily Moisturising neutral pH emollients
- Avoid skin products with antiseptic irritants such as benzalkonium chloride (eg Dermol™ 500).



Bleeding

- Apply ice to the insertion site before the next insertion to constrict the blood vessels
- If there is blood in the infusion set, change it out
- If bleeding occurs under, around, or on top of the sensor, apply steady pressure using sterile gauze for up to three minutes
 - If bleeding does not stop, remove the sensor and apply steady pressure



If skin issues are identified what do you do?

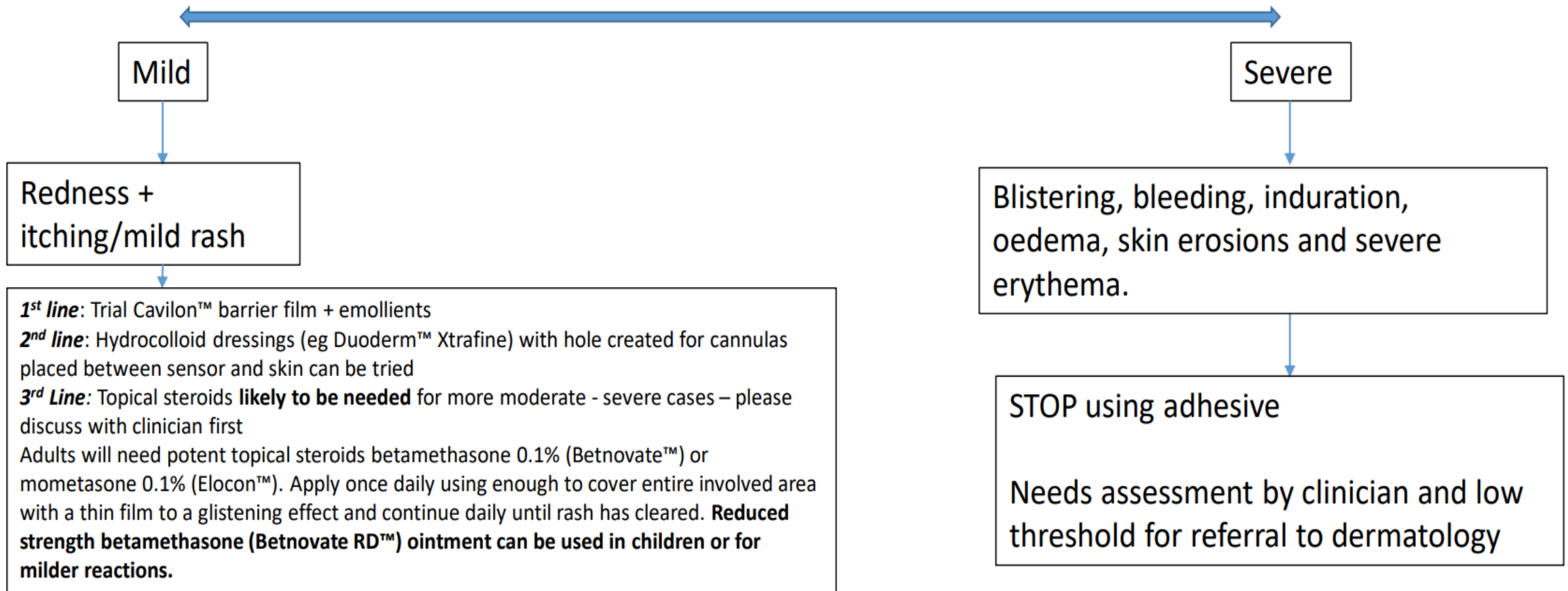
Assessment of skin issues

- A photo
- Assess reaction site – cannula entry or adhesive area
- Classify the reaction - location, erythema, pain, bleeding, blistering, itch, lump, discharge, systemic symptoms
- History of allergies (skin, asthma, hayfever)
- When does the reaction occur – immediately or after a time
- Review skin preparation
- Home treatments?
- Have other sites been tried

Report to MHRA via the [Yellow Card](#)

Action

3. Management based on severity of reaction:



Jointly with Diabetes Team and consultant dermatologist

Severe dermatitis

- Irritant and contact dermatitis
- Excessive itching
- Redness blistering
- Unable to tolerate sensor/cannula
- Likely adhesive
- Possible cannula
- Barrier treatments
- Allergy testing - referral to dermatology

Report to MHRA via the [Yellow Card](#)

FIVE TIPS FOR DEVICE PLACEMENT

CHOOSE HEALTHY SKIN

Avoid broken skin, scabs, cuts, and scrapes, and any area of healing irritation. Wait at least a week before reusing a site.



NO BENDY AREAS

Do not place devices in areas where the skin creases with bending, like the waistline.



SWOLLEN TISSUE

Insulin infusion can cause swelling under the skin called lipohypertrophy. If this is present, try not to inject insulin/place infusion sets in this tissue. CGM sensors are okay.



PANTHERprogram.org

PINCH IT UP

People wear sensors on many different parts of the body—abdomen, buttocks, hips, legs, arms, forearm. Choose an area that has enough fat to “pinch”, and an area that is comfortable for you.



ROTATE

Try to use as many sites as possible! Even if you use only one or two areas of the body, make sure to rotate sites 1-2 inches away from other sites.



FIVE TIPS PREVENTING SKIN IRRITATION



CLEAN!

Make sure to wash your skin with antibacterial soap and water and dry thoroughly — this will remove excess oils and lotions from the skin. Making sure skin is dry is also key!

NO ALCOHOL

If the skin is cleaned thoroughly with antibacterial soap, avoid using alcohol, which may further irritate the skin.

SKIN PREPS

There are many types of skin barrier wipes to help prevent skin reactions. Apply to the skin and **let dry thoroughly before inserting the sensor.**

HYDROCOLLOIDS FOR ALLERGY

If there is severe reaction or persistent allergic reaction, thick hydrocolloid bandages can be used underneath the sensor/set tape. Some people insert the sensor directly through the hydrocolloid bandage, while others cut a small hole (which may lead to more skin exposure to the sensor tape, but may reduce chance of damaging the sensor).

STEROID FOR ALLERGY

Many people spray 1-2 layers of fluticasone (brand name: Flonase) to the skin prior to any sensor adhesives, and then let it dry completely. This may reduce allergic reaction to the chemicals in the sensor tape.

Note: Fluticasone is not intended to be used this way (it is a nasal spray), so it is unknown long term if this has any lasting side effects on the skin.

[AMAZON LINK](#)

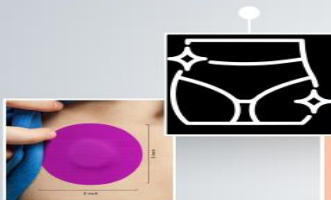
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FIVE TIPS FOR EXTRA STICKING POWER

BASIC SKIN PREP

To give your sensor the best chance of sticking, make sure to prepare your skin well, including:

- Shaving excess hair from the area
- Washing with soap and water to remove oils and lotions
- Make sure the area is completely dry



BARRIERS CAN DOUBLE AS STICKING AGENTS

Some of the barrier wipes described above also increase the sticking power of your sensor. Apply to the skin and let dry thoroughly before inserting the sensor.



NON-TAPE SOLUTIONS

If sensors are worn on the arms, non-adhesive wraps or covers can be used to help the sensor stay on the skin. Be careful not to wrap the arm too tightly, as this can cause the sensor to poke into muscle tissue and read falsely low glucose readings.



EXTRA TAPE

There are several types of tape and patches that can be applied over the sensor tape.

TAPING TECHNIQUE

How you add extra tapes matters as well. If you cutting your own tape, consider the “picture frame” approach around the transmitter, by holding down the 4 sides of the sensor adhesive. Sometimes device specific patches come pre-cut into the shape that you want. This usually means there is a hole cut out in them for the transmitter, but sometimes also covers the transmitter.



FIVE TIPS FOR REMOVAL & HEALING

USE PRODUCTS TO HELP IT UNSTICK

There are a variety of products that can help peel tape from the skin. The simplest solutions may already be in your house—baby oil or olive oil! Wet a paper towel with oil and rub the oil under the corner of the tape. Slowly peel and continue to wipe oil under the tape until the entire sensor is removed.



LOW AND SLOW

To minimize the chance of tearing skin, try removing tape by gently folding back on itself (low) and pulling very slowly (slow). This is the “low and slow” technique.



CREAMS & LOTIONS

Once the sensor is off the skin, you can condition the area as needed.

- For dryness, use lotion
- For redness, itching, or irritation, use hydrocortisone cream (as directed on tube)
- For skin tears or pain, try an antibiotic cream (as directed on the tube)



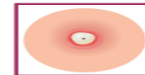
LEAVE IT ALONE

Make sure to leave the skin to heal for about 1 week before placing another sensor in the area. Do not cover with tape for at least a week.



GETTING WORSE

If there is pain, puss, warmth, or spreading redness that persists for 1-2 days after the sensor/set is removed, call your doctor to let them know you may have a site infection. They may prescribe you a stronger antibiotic to treat the infection.



Summary

To promote on going use of diabetes tech
prevent, early detracton and prompt treatment of skin issues

- Inform people of skin issues on assessment for CGM
- Assess skin
- Skin preparation
- Barrier solutions
- Approved products
- Good skin care and rest areas
- Thorough assessment, intervention and referral as indicated













