FES Skin Irritation Information Sheet (User)

Joe Green, Senior Physiotherapist

Irritation can sometimes occur in response to electrical stimulation, on the skin under one or both electrodes. In most cases it can be treated and prevented from returning with careful management.

1. What is skin irritation?
   a. Red patches, spots or blisters under the electrodes
   b. A slight reddening of the skin is normal under the electrodes after use, due to increased blood supply to the area. This should fade within an hour or so of removing the electrode. If the red mark is still there the next day, it may be skin irritation

2. What should I do if I get a skin irritation?
   a. Stop using FES
   b. Contact your FES clinician and ask for advice

3. What causes skin irritation?
   a. Skin irritations can occur when the skin’s natural barrier is broken
      i. This can be due to:
         1. Scratching the skin
         2. Placing the electrode over a cut, rash, spot or insect bite
         3. Shaving your skin
   b. Using old, dried out, damaged or dirty electrodes
   c. Occasionally irritation can be due to an allergic reaction to the gel

4. How can I get rid of skin irritation?
   a. Do not use FES with the electrodes placed over the same area of skin until the skin has completely healed
      i. Sometime alternative electrode positions can be used. Ask you FES clinician for advice.
b. If the skin is slow to heal, weak steroid creams such as Eumovate (available without a prescription from a chemist) can be used.
c. If the skin still does not heal, ask your GP for advice.

5. How do I prevent skin irritation reoccurring?
   a. Make sure you change your electrodes regularly. Electrodes last about 30 applications.
   b. Rehydrate the electrodes at the end of each day, by applying tap water to them. An electrode must stick to the skin across the whole of its surface. If they become rough or pitted, replace them.
   c. If there are skin cells stuck to the pads wash them off with tap water and your fingers.
   d. Make sure electrodes are stored on the plastic backing sheet and placed in their sealed bag, when they are not in use. This helps to stop them drying out.
   e. Always take off the electrodes at night.
   f. Keep the skin clean using normal daily washing.
   g. Do not dry the skin out by removing natural oils with excessive washing or very long baths.
   h. If the skin is dry, use a water-based moisturiser such as E45 cream. Apply the cream at bed time so it soaks in overnight. If the skin is very dry consider multiple applications, with a few minutes break between each one.
   i. Do not shave the skin using a razor to remove hairs. This may cause small scratches, which makes the skin vulnerable to irritation. Instead use a beard trimmer or clippers.
   j. If your skin itches, do not scratch! This may break the skins natural barrier.

6. What if the irritation still comes back?
   a. Get further advice from your clinician and / or GP.
   b. You may need to use FES less often.
   c. Ask your FES clinician if you can use more than one electrode position and alternate them on different days, resting the skin on the “off” days.
   d. Consider the use of an implanted FES device called STIMuSTEP. A review by a dermatologist may be necessary first.