Hand exercises following burn injuries
When you sustain a burn to your hand, the natural reaction is one of protection. This may mean you avoid moving your hand because of fear of pain or causing further damage to your hand. Dressings to the hands can also make functional tasks like washing and dressing more difficult and you may require support from nurses, family or friends initially.

**It is very important to exercise your hand regularly throughout the day.** The Physiotherapist will assess the movement of your hand and will teach you the exercises in this leaflet.

**Why do I need to exercise my hand?**

Exercises help to maintain or improve the movement of your hand by preventing joints becoming stiff and soft tissues such as muscles and tendons becoming tight. Exercises also help to maintain the natural movement and glide of the tendons within the hand, preventing them becoming tethered and stuck down.

It’s normal for your hand to feel stiff after rest. Exercise will improve this stiffness in the short term, but it is normal for your hand to feel stiff again after it has rested. This is why it is important to exercise regularly.

If you take longer than three weeks to heal or if you require a skin graft you may be more at risk of developing scarring. This can be raised, red, firm scarring which can develop for about three months after you have healed. If it is on or near a joint, it tightens and contracts which can lead to loss of range of movement. The Physiotherapist will advise you how long to continue your exercises but as a general rule if you have taken longer than three weeks to heal, or have had a skin graft you will be advised to continue to exercise for at least 3 months to prevent complications.
Why do I need to wear a splint?

In some circumstances the Occupational Therapist will make you a splint for your hand. Splints can be used for many reasons including:

- To stop you from moving your hand after a skin graft until the doctors are happy for you to exercise
- To keep your hand in a good position aiming to prevent tightness in the ligaments and tendons while you are having difficulty moving your hand fully
- To help reduce swelling
- To help improve movement where scarring has led to reduced movement

The Occupational Therapist will advise you how to use the splint, for example wear all the time and remove for exercise only, wear at night time or wear all the time.

Why do I need to elevate my hand and how do I do it?

When you have a burn to your arm or hand you may develop swelling of the limb. This is caused by fluid leaking out of the blood vessels into the surrounding tissues. It can occur soon after injury and last for a few days. The burns team will advise you to elevate your hand as much as possible to reduce the swelling. Swelling can make it difficult for you to move your hand, encouraging it to become stiff and more painful. The depth of the burn can also be affected by swelling.

Elevation helps to reduce swelling by draining the fluid away to be reabsorbed by the body. The hand should be positioned using pillows or a sling at shoulder height.
Hand exercises

Tips to help you exercise

- If required, aim to take pain relief 20 minutes before exercising.
- Aim for at least 10 repetitions of exercise but if you are not achieving good range of movement the number of repetitions can be increased.
- Exercise regularly during the day aiming for full range of movement.

1. With the elbow bent and tucked into your side, turn palm up, and then palm down.

2. Bend your wrist forwards then backwards.
3. Spread your fingers apart.

4. Keeping fingers straight, stretch the thumb away from the palm.

5. Stretch the thumb out to the side.
6. Stretch your thumb across your hand and bend the tip of your thumb.

7. Keeping the fingers straight, bend at the first knuckle joints.

8. Hook your fingers.

9. Make a full fist
Therapy Rehabilitation Plan

Named Physiotherapist

☐ Stretch shoulder and elbow regularly

☐ Exercise hourly during the day

☐ 10 Repetitions of each exercise (but can do more)

☐ Elevate hand at rest

☐ Splint on at rest (off for exercise)

☐ Splint on at night

☐ Out-patient physiotherapy referral on discharge to local Physiotherapy Department

☐ Out-patient physiotherapy review in Adult Burns Clinic

Contact Details

If you have any concerns once home about your therapy, please contact the burns therapy team on 0117 414 3114 and leave a message. The team will return your call as soon as possible.
How to contact us:

H Burns Therapy Room
Brunel building,
Gate 33a, Level 2
Southmead Hospital
Westbury on Trym
Bristol
BS10 5NB

0117 414 3114

www.nbt.nhs.uk

If you or the individual you are caring for need support reading this leaflet please ask a member of staff for advice.

© North Bristol NHS Trust. This edition published April 2016. Review due April 2018. NBT002869