Agenda

- Wound Healing
- Scars
- Types of Treatment
Wound Healing

INFLAMMATION

PROLIFERATION MATURATION

% of Maximum Response

0

0.3  1  3  10  30  100

TIME (DAYS)

Wound Contraction

Collagen Accumulation
Healing by Primary Intent

It’s the fibrous union that causes a scar
Formation of Scars

What is a Scar?

Thick connective tissue that will be naturally generated as an attempt to heal wound. This connective tissue will replace the blood clot or the scab that initially formed in order to stem bleeding.
Scars

**Scar**
A scar constitutes the healed state of a skin injury. The connective tissue of the scar will, at first, be red, fairly inelastic and not very functional. As the scar matures, it is possible for shrinkage and hardening to occur.

**Hypertrophic scar**
An excessive production of collagen fibres leads to the irregular formation of connective tissue extending beyond the original wound area.

**Keloid**
A keloid is an uncontrolled, strong connective tissue growth extending beyond the wound area into healthy skin. The resultant reduction in skin elasticity can lead to stiffening of joints.

**Atrophic scar**
Sunken scars created in poorly healing wounds. They result from an inadequate production of connective tissue fibres.
Treatment of Scars

• Compression - generally with shrinkers
  – Should be the pressure on the box
  – Higher stiffness is better (partsch)

• Silicon pads (not gels)
  – Helps modulate moisture within the scar
  – Stops scar from drying out

• Massage
  – Breaks down fibrosis and loosens scar tissue
Stump Shrinker Pressures

A so-called 18-21mmHg Product
Not firm
Not correct degression

A so-called 20-30mmHg Product
Not firm

A so-called 25mmHg Product
Stretchy
Reverse compression!

Data on file, test carried out on MST 2007 in December 2014
Scar Pads

Pads of various shapes, sizes and thickness that help to reduce the scar over time
NB must be worn for as much as possible per day – up to 23 hours per day, for 6-24 months
Scar Massage and General Skincare

- This technique is done to keep the skin and scar tissue on your residual limb loose. Scar adherence to underlying tissue can be a source of pain when using your prosthesis and can also cause blistering. It is best performed when you are not wearing your compression dressing.

- Care of Your Wounds After Amputation Surgery IMG 10
  Place two fingers over a bony portion of your residual limb.

- Press firmly and, keeping your fingertips in the same place on the skin, move your fingers in a circular fashion across the bone for about 1 minute. Continue this procedure on all of the skin and underlying tissue around the bone of your residual limb.

- Once your incision is healed, use this procedure over your scar moving your fingers in a circular fashion to loosen the scar tissue directly.

- This technique should be done daily when you bathe.
Follow Up Treatment

Consistent wearing of the compression garment (if necessary in conjunction with silicone pads)

Regular skin care

Physiotherapy or occupational therapy

Avoiding direct exposure to the sun – although Juzo Expert shrinkers give UV 80 protection
Questions

• Which I will do my best to answer today.