### **BURN SCAR CASE STUDY**

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Burns to the skin often result in scarring. The amount of scarring depends on the grade of the burn.

Burn scars result not only in pain and tissue sensitivity for many years, they also result in contracture of the tissue, making the areas of skin, tissue and joints tight and restricted.

The tightness of contracture scars from burns therefore results in reduced mobility and freedom of movement, especially when the burn is over a joint, or multiple joints if the burn is extensive.

Adults with old burn scars can be a clinical challenge for plastic surgeons. Skin grafting is often the preferred method to release these contracture scars. This involves surgery from a donor site, located at another area of the body, and does not always achieve the best results.

Within this case study the writer will reveal the impact one specific scar treatment technique has made on an adult with old full depth burn scaring.

### **Background**

Rachel had an accident at the age of seven. Her sisters removed a safety fire guard in an upstairs bedroom. As Rachel stood close to the open fire and shook her nightdress, it caught fire very quickly as it wasn't fire retardant.

The sisters did not alert their parents to the incident at this time. The burns that occurred as a result of this accident were full thickness and, due to plasma loss, Rachel was not expected to survive. Thankfully, Rachel did survive but with scars covering most of her trunk, from her chin to the bottom of her abdomen, under the left arm (axilla) and partially under the right arm.

Over the years Rachel experienced restriction of movement caused by the scarring, combined with reduced elasticity of her skin. The standard treatment she received was skin grafting, which often escalated the problem. One contracture soon became two, and two contractures became four. Eventually Rachel could barely raise her arms.

As an adult, these contracture restrictions made Rachel's occupation a Staff Nurse made caring for her patients very difficult. Despite the best efforts of the plastic surgeons Rachel decided to stop receiving treatment and learned to adjust her movements and learn to live with the restrictions from her scars.

## **Practitioner comments:**

I first met 68 year-old Rachel in October 2021, she came to me for treatment for a painful knee and shoulder.

During the initial consultation Rachel mentioned, in passing, that she had some burns from a childhood accident and I could see that there was a significant restriction of her neck rotation and also restrictions on raising her left arm. The restrictions to her right arm were not as great.

On the second visit, Rachel went into more detail, describing the scarring as covering the front of her body from lower torso up to her neck and both underarm. She also told me of the years of skin grafts designed help her general upper body movement. Although some surgeries were successful some, unfortunately, were not. All of these interventions were performed many years ago.

It was at this point that I told her that I was trained in McLoughlin Scar Tissue Release® (MSTR®), a technique specifically designed for the remodelling and reconfiguration of scar tissue.

I could tell she was hesitant, and had never heard of MSTR®. I explained how the treatment worked and suggested she look it up online, do her own research and get back to me if she wanted to give it a try. I was delighted when she came back the following week and said she was willing to see if MSTR® could help.







Rachel's left underarm was her main problem area. She had had several skin grafts there and several tight bands of skin which were causing her restriction when lifting her arm.

Pre-treatment: The Range of Motion (ROM)

in her right arm movement was measured at 120 degrees for both flexion and abduction. The left arm ROM was around 90 degrees in both flexion and abduction.

Additional areas of concern were her neck which caused restricted movement and also her abdomen. Although her abdomen did not seem to cause movement restrictions, the skin was sensitive and Rachel found clothing would irritate the area quite easily.

#### TREATMENT:

I was very gentle and carefully applied the physical therapy technique called MSTR® over the various areas that seemed to cause Rachel the most discomfort or restriction.

After working for a few minutes on the right axilla I felt the tissue soften. After working upon the area for a few minutes longer, the area became very red/purple in colour, indicating changes and improvement in vascularity. I moved on to the next two bands of tissue in the axilla and continued the work.

After a pause of a few moments, I asked Rachel to feel under her arm and give me feedback. She was elated with the changes she felt! She just couldn't believe the difference.

Rachel emailed me that night thanking me for what I had done for her. Neither she nor her husband could believe how different it felt and how much more movement she had.

In Rachel's own words, "I was never able to raise my left arm straight up. This also caused me pain and was often uncomfortable at rest. Because of this I could never carry shopping bags in my arm. I practiced yoga in the past but it was difficult to obtain some positions due to restriction of movement and pain. I had to use a small stepladder to reach the top shelf of my kitchen cupboards and wardrobe. Although there is one small contracture left I can now reach these without a step ladder."

Post-treatment, the range of motion in **both** of Rachel's arms improved to 150 degrees in both flexion and abduction. This represents 30 degrees of improvement in ROM in the right arm and 60 degrees of improvement in ROM for the left arm.

#### She continues:

"Although there was contracture in my right arm, it did not reduce my movement as much as the left, but my movement has improved and I can raise it further by one or two inches without pain. My neck did not massively impact on my daily life but I did have restriction in movement and therefore made tasks uncomfortable, although this is still a work in progress movement is more comfortable. I experienced massive discomfort on my abdomen with clothes, especially trousers as the buttons often felt like they were digging into. Now this has smoothed out I feel more comfortable. There is a definite 80% improvement in that area."

Rachel has now had 5 sessions of MSTR®. We have systematically worked our way through each scar that causes her problems. We have worked on both underarms, neck, and a larger band going across Rachel's abdomen.

Treatments will continue, but every single treatment is making a huge difference to Rachel. She is so happy with the results and said she wishes she had met me years ago or knew about this treatment before she endured endless surgeries.

Rachel is a very determined lady who has never let her scarring stop her with anything in life. She had a very successful career, travelled the world, has a loving family and a long happy marriage.

Rachel is nothing short of inspirational. It is she who has pushed me to write this. She wants to get the message about MSTR® 'out there', to help other people like her who feel

the way they are living is the best they will ever achieve. With new advances in burn scar treatment, like MSTR®, those achievements and quality of life, can be enhanced and improved upon, even with long-term scarring.

By June Miller, February 2022

For more information or to locate your nearest qualified MSTR® practitioner please visit:

https://www.mcloughlin-scar-release.com