

“Physical Recovery from Severe Burn Injury – post-hospital experience.”

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What is Recovery?

- Many different factors, experiences, motivations, expectations, and beliefs regarding 'recovery' from burn injury.



What is Recovery?

- Definitions:
 - *a return to a normal state of health, mind, or strength.*
 - *the action or presence of regaining possession or control of something stolen or lost.*



Physical Recovery

- A return to normal??

VS

- Regaining control of something lost or stolen??
- What is the 'new normal', or how do you regain control??

Physical Recovery

WHAT DO I NEED TO KNOW ABOUT MY BURN INJURY??

- Burns are not just skin deep
- Significantly affected by the difficult stuff to discuss:
 - Post burn mortality & morbidity

Physical Recovery

The serious stuff is worth knowing, so that you can do something about it. Very few people are good at this whether they have survived a burn injury or not, but you can be!!



Physical issues & complications

- Understanding the long-term impacts of burn on the cardiovascular system (Duke et al, 2015)
 - Population based study in WA comparing adults 45yrs and over with matched burn survivors 1980-2012
 - Higher incidence of hospital admissions, LOS, & mortality rate due to issues of the circulatory system in burns survivors
 - ~10% increased incidence in mortality rates

Physical issues & complications

- Mortality in the Burns Survivor – Further follow up and intervention is required (Paratz et al, 2015)
 - Increased survival in acute stage BUT ongoing issues with metabolic, functional and quality of life measures.
 - Increased incidence of premature death in burn survivors compared with population data.
 - <40 years due to self harm and major trauma
 - 41-60 years due to chronic liver disease
 - >61 years due to cv complications

https://www.health.qld.gov.au/__data/assets/pdf_file/0022/423535/paratz.pdf

Musculoskeletal Issues

- Pain inhibition, dislocations/fractures, amputations, HO, nerve injury, persistent oedema (swelling), pseudo-arthritis, LBP, neck and generalised joint pain/tightness, deconditioning, etc.



Physical Factors in Recovery from Burn Injury

Pre-existing injuries, beliefs, habits and lifestyle choices.

- Other Factors
 - Fractures / dislocations / amputations
 - Presence of heterotopic ossification (HO)
 - Nerve injury
 - Scar bands (N.B. prolonged stretching causing stress on underlying joint and soft tissue structures such as shoulders, necks, backs, etc OR bands causing subluxation of mobile joints in hands and feet especially)
 - Pressure areas
 - Age



Musculoskeletal Issues

- Long-term outcomes in patients surviving large burns: The musculoskeletal system (Holovanahalli, Helm, and Kowalske, 2015)
 - Musculoskeletal conditions ~17 years post injury
 - Joint pain/stiffness, problems walking/running, fatigue, weak arms and hands, weight gain => 50% or more of 97 subjects in study
- Intensive exercise after thermal injury improves physical, functional, and psychological outcomes (Paratz, Stockton, Plaza, Muller and Boots, 2012)

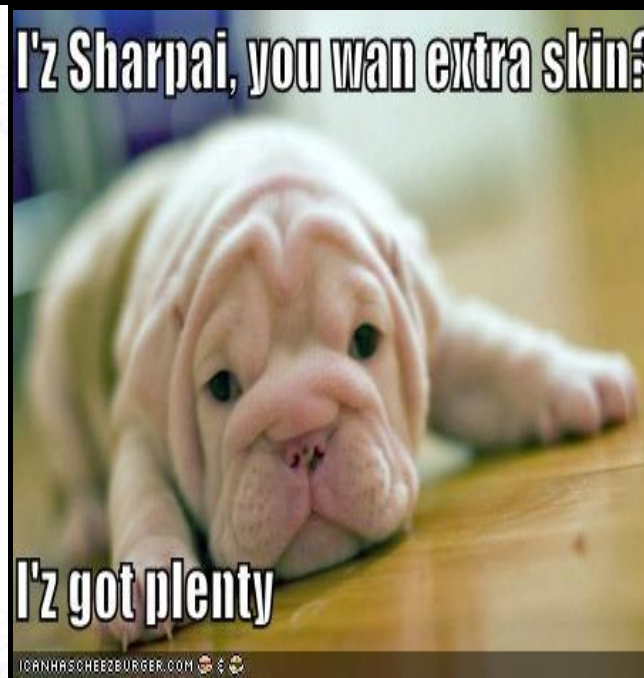
Musculoskeletal Issues

- Long-term MSK morbidity after adult burn injury: a population-based cohort study (Randall et al, 2015)
 - 18k persons >20yo with burn injury in WA (33yrs)
 - Burn cohort had almost twice the hospitalisation rate for a msk condition
 - Spent 3.7 times as long in hospital with a msk Dx
 - Arthropathies (joint), dorsopathies (spine), osteopathies (bone), and soft tissue disorders
 - Both minor and severe burn injuries

Physical Factors in Recovery from Severe Burn Injury

A bag of bones and a sack of skin (or scar tissue!)

What is in between??



A bag of bones and a sack of skin (or scar tissue!)

- Manual techniques performed on you can and will have an impact on your recovery, BUT the muscles and heart and mind are up to YOU!



Physical Factors in Recovery from Severe Burn Injury

- “Time, pressure and movement”
- Movement – Specific stretches, specific strengthening, and functional movement/use
- “The single most important factor determining how well you recover from a burn injury is sitting on your chair right now.”

Physical Factors in Recovery from Severe Burn Injury

- “Strength of mind and strength of body
= confidence”
 - “Slow and steady wins the race”
 - “Living elastic band”
- “When building a house, what do you
do first?”
- “Forklift or a crane on solid footing vs
at the beach”

How do you achieve that?

KTMG 2017

Everyone is different and must find the path that best suits them.



- What are YOU aiming for (short/medium/long term)?

Not 'Future Goals' though Angela!!

- What are YOUR barriers to achieving momentum?

Social supports/relationships, attitude/belief, pain, grief, loss,

financial constraints, etc.

**One way to keep momentum going
is to have constantly greater
goals.**

Michael Korda

Physical issues & complications

- Ongoing exercise & stretching behaviours

Exercise in all its 'glorious' forms!!

- National Activity Guidelines for Exercise
- Long term studies of burn survivors



Momentum
Demands
Movement.

Physical issues & complications

<http://nht.org.au/wp-content/uploads/2014/03/NationalPhysicalActivityGuidelinesforAdults.pdf>

1. Think of movement as an opportunity, not an inconvenience
2. Be active every day in as many ways as you can
3. Put together at least 30 minutes of moderate intensity physical activity on most, preferably all days
4. If you can, also enjoy some regular, vigorous activity for extra health and fitness

For best results combine an active lifestyle with healthy eating

Motivation / Adherence with programs



EXERCISE

Some motivation required.

What does KTMG mean?

- Google it!!

Anecdotes/bloggers/jokes

- What does it mean to you and to me?
- Do you have momentum in your recovery/life yet?
- Did you have it and lose it? Why??
 - Transition phases
 - Physical factors
 - Emotional & psychosocial factors



How do you achieve/maintain momentum?

- 5 tips to KTMG (Jen Mueller – Sparkpeople blogger)
 1. Revisit your goals
 2. Find things you like
 3. Create a support system
 4. Learn from your mistakes, don't fear them
 5. Reward yourself

How do you achieve/maintain momentum?

- What do I need to know about my injury?

- What are my experiences as a Physiotherapist? (e.g. running man)

Don't place limits on yourself or create roadblocks where they don't exist.

**Don't let what
you think you
can't do affect
what you **CAN** do.**

Taylor Sterling

What can 'I' do?

- What is my motivation?
 - Health
 - Family/Relationships
 - Work
 - Appearance
 - Rewards

Write down two

What can 'I' do?

- What is my goal?
 - Strength
 - Function
 - Comfort
 - Long life
 - Happy life
 - Mt Everest

Write down two

Physical issues & complications


- Which form of exercise have you tried?
Write down 5
- Which form of physical activity do you enjoy?
Write down 2
- Which form of physical activity helps with the physical effects of your burn injury?
Write down 2
- Which form of physical activity is most practical for you to perform?
Write down 2



"Be patient, a few more strokes and I'll soon have the momentum going."

People often say
that motivation doesn't last.
Well, neither does bathing
and that's why
we recommend it daily.

~ Zig Ziglar

A photograph of a snowball rolling down a snowy hill. The snowball is on the left side of the frame, and a trail of snow is visible behind it, extending towards the bottom right. The background is a vast, white, snowy landscape under a clear sky.

**SUCCESS IS LIKE A SNOWBALL ...
IT TAKES MOMENTUM TO BUILD
AND THE MORE YOU ROLL IN THE
RIGHT DIRECTION THE BIGGER IT GETS.**

Steve Ferrante