Fatigue and exercise after a subarachnoid haemorrhage

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Outline

- What is fatigue?
- How to manage fatigue
- Why is exercise important after my SAH?
- Is it safe to exercise after SAH?
“A subjective lack of physical and/or mental energy that is perceived by the individual or caregiver to interfere with usual or desired activities” MS council

Fatigue can be defined as an overwhelming sense of tiredness, lack of energy and feeling of exhaustion (Krupp, 1996)

Can persist post a SAH even when good outcomes experienced in other domains (Buunk et al., 2015 and Boerham et al., 2016)
Experienced by many people with neurological disorders, experience is unique to each person.

30-90% of people post SAH experience fatigue (Kutlubaev, 2012).

Fatigue can come on suddenly and can foil a person’s most doable to-do list.

Unlike usual tiredness, fatigue doesn’t always improve with rest and it isn’t related to how busy or active you’ve been.
“Fatigue feels like being weighed down, as if you are trying to walk up to your neck in a deep, muddy river in heavy, wet clothes carrying shopping bags full of rocks.”

“I feel mentally tired, like my brain is totally fried and find it really difficult to concentrate. Also I make mistakes or garble my words.”

“I get so tired during the day that I can't concentrate and feel like I have to sleep right there and then. Everything just feels really heavy as well, especially my arms.”
“I find the biggest problem about fatigue is that others don’t understand it. I think it would be easier for people to understand if you were wearing a plaster cast.”

“I still sometimes feel guilty that I should do more, and sometimes slip back into old ways of taking on too much, not taking a break, but I soon pay the price with a worsening of symptoms.”
Primary
- Directly related to SAH
- Underlying cause not known

Secondary

Environment
Depression and stress
Other medical conditions
Sleep disturbance
Medication
Deconditioning
Fatigue management

IS

A coordinated approach involving your active participation and also the involvement of family and health professionals

AIMS TO

• Help you to understand more about fatigue and factors contributing to your individual experience of fatigue
• Improve your ability to manage all aspects of your life within the context of fatigue
How can I manage my fatigue?

- Analyse your fatigue
- Minimise your fatigue
- Manage any fatigue that remains
ACTIVITY DIARY
# Activity diary

**Date:** 10/08/2017  
**Sleep:** Slept well, felt rested, woke one time for bathroom, went back to sleep immediately

<table>
<thead>
<tr>
<th>Time</th>
<th>F</th>
<th>V</th>
<th>S</th>
<th>Activity</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.00am</td>
<td>7</td>
<td>9</td>
<td>5</td>
<td>Made breakfast standing up 10mins</td>
<td>Blurred vision while standing, eased off when sat down to eat</td>
</tr>
<tr>
<td>9.00am</td>
<td>9</td>
<td>1</td>
<td>4</td>
<td>Hovered the bedroom floor for 30mins</td>
<td>By end of activity felt completely drained, had to go back to bed</td>
</tr>
</tbody>
</table>

1-10 (1 = very low; 10 = very high)  
**F** = Fatigue level  
**V** = Value of activity  
**S** = Satisfaction you feel with your performance
Using your diary as an ‘energy bank’

- Overall fatigue levels
- How your fatigue fluctuates during the day and week
- How fatigue is related to activities
- Possible factors that may contribute to your fatigue
- Where and how you are spending your energy
- Possible changes in behaviour, equipment or environment that may help reduce fatigue
Example of poor fatigue management!

- Feeling that you have to ‘push through’ your fatigue (even if its 10/10)
- Doing too little and feeling lethargic
- Having no energy left for activities that you enjoy
- Not matching your activities to your energy level
- Not planning ahead
- Not asking others for help to do things
Example of poor fatigue management!

‘Boom and bust’
Activity

Rest

Rest

Rest
Rest and relaxation

- Rest is most effective when used in conjunction with relaxation techniques
- You need a quiet environment and the willingness to rest

Examples:
- Deep breathing, muscle relaxation, meditation (headspace app), yoga, Tai Chi, exercise
- Music or sounds, such as the sea or birdsong.
- Aromatherapy
- Imagery/visualisation
Activity

‘Any task that requires energy to perform it’
Prioritisation

Grading

Delegation

Pacing

Organisation
Remember the 4 D’s….

<table>
<thead>
<tr>
<th>Do</th>
<th>Delay</th>
<th>Delegate</th>
<th>Ditch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the activity something you enjoy or has to be done? – try to get a balance</td>
<td>Can it wait?</td>
<td>Can someone else do it/share the task?</td>
<td>Can you eliminate it altogether</td>
</tr>
</tbody>
</table>
Summary

- Fatigue is common following SAH
- It is subjective and it is important to educate friends and family about your fatigue
- Keeping a diary is a good way of identifying your fatigue patterns
- Avoid ‘bust and bust’
- Create and energy bank and balance rest and activity
- Use your toolbox – prioritisation, delegation, pacing, organisation and grading.
What else can help?

- Healthy lifestyle
- Exercise
Why do exercise

- Prevent complications from prolonged inactivity
- Decrease recurrent cardiovascular and neurovascular events
- Increase aerobic fitness

- All this not withstanding functional limitations

Journal of Stroke April 22, 2004
Why do exercise

Complications from inactivity
- high blood pressure
- Weight gain and obesity
- Heart disease
- Osteoporosis
- Stroke
- Diabetes
- Breast and colon cancer
- Depression and Anxiety
- Fatigue

Reduced recurrent cardiovascular and neurovascular events
- Lowers risk of strokes
- Lowers risk of heart attack
- Lowers risk of heart failure

Increases aerobic fitness
- Lowers risk of strokes
- Lowers risk of heart attack
- Lowers risk of heart failure
- Lowers blood pressure
- Easier control and prevention of diabetes
- Elevates mood
- Improves sleep cycle

World Health Organization - 2017
Why don’t we do enough exercise?

- SAH severity and functional limits as a result
- Comorbidities
- Support to facilitate exercise
- Depression
- Fatigue
- Social integration issues
- Cultural issues
Is it safe?

Did any of your doctors give you any advice on whether or not it was safe to exercise after your SAH? Mine told me that after 3 months I would have NO restrictions whatsoever. I believe him when he says that but I think we all can agree it just doesn't FEEL right and I keep thinking I will cause another SAH but working out hard.
Fears of exercise

- What if it happens again?
  - Incidences of spontaneous SAH as a result of exercise are few and far between
  - Any cases you can find are in people completing Valsalva maneuvers (power lifting) and/or have underlying undiagnosed pathology

- There is an overall “re-bleeding rate” of less than 2% worldwide – Lancet 2007

- You have all had your brains scanned at some point
Is it safe

- Exercise post neurovascular event is recommended and considered safe by the following groups’ or counties’ clinical guidelines
  - Europe
  - Australia
  - Canada
  - United States of America
  - Brazil
  - Japan

Information from the respective entities clinical practice guidelines
What kind of exercise

- Walking
  - It is the single BEST thing you can do for your health
- Swimming
- Cycling
- Jogging (if you are able)
- Lifting weights
How long and how strenuous

- GOOD NEWS!
  - All the benefits of exercise are available to people who exercise at a level where you can maintain a conversation and speak in full sentences
  - If you wanted to wear a heart rate monitor it would be 60 – 70% of your ‘maximum heart rate’

- Aim for 30 minutes a day
  - As long as you exercise for 10 minutes or more it can count towards your daily total
  - 3 sessions of 10 minutes of walking will get all of the improvements we have discussed
23 \frac{1}{2} hours

- Can you limit your sitting, resting, TV watching, sleeping and eating to just 23 \frac{1}{2} hours per day? – Dr Mike Evans
Strategies

- Find a walking partner
- Get off a stop early on the tube or bus
- Walk the long way home from the closest station
- Keep a diary
- Leave yourself notes around the house as reminders
- Phone apps
- REWARD YOURSELF
The Truth…

- The safety considerations for exercise all are the same for you, as they are for any person.
- We can acknowledge the extra difficulties that you will have in returning to exercise

BUT

- There is no medical reason that you, with a treated aneurysm, cannot go about a normal healthy level of exercise.
Questions?
References


- Lush and Hourihan 2005


- Living with fatigue Ms society

- https://support.mstrust.org.uk/shop?prodid=204