

# IS POST-NATAL RECOVERY LIKE RECOVERING FROM A SPORTING INJURY?

The physical impact of pregnancy and childbirth may differ to that experienced in sporting injuries, but the need for a support team to aid recovery is just as important, says women's health expert *Dianne Edmonds*.

**P**rofessional athletes recovering from an injury will have a support team of trainers, physiotherapists, massage therapists and coaches around them to enhance and optimise their recovery. They will take the medical advice given and follow timeline guides provided, while optimising retraining and rehabilitation to strengthen weaknesses, stretch appropriately, recover balance and proprioception (joint position sense) to return to performance levels.

## Pregnancy and birth changes affecting recovery

Post-natal recovery can be likened to recovering from a sporting injury, although pregnancy and birth cause physical changes of a different type. These include:

- Stretched and lengthened abdominal wall muscles
- Linea alba changes, including potential thinning and widening to cause an abdominal muscle separation
- Changes to the pelvic floor and potential stretch and injury to muscles, connective tissue and nerves during a vaginal delivery
- Scar tissue formation and healing, either following a vaginal delivery or following birth via a caesarian section





- Postural changes from pregnancy that may have caused hip flexor, back muscle or joint tightness.

Post-natal women are also affected by changing hormones, as the body adjusts from pregnancy, as well as breastfeeding hormones which can affect the body's recovery. Altered and interrupted sleep patterns are also common for post-natal women, and these can affect healing and recovery time.

Energy levels also need to be considered in the recovery process.

### Forming a team of support

Fitness professionals working together with medical professionals and women's health physiotherapists can build a support team around a recovering post-natal mum. Child and Community Health nurses also can form part of this team, as can mother's groups and networks providing support groups, such as Breastfeeding Australia, to assist in the overall health and wellbeing of the mother.

### Recovery timeline

Timeline guides can be given to women based on the physiological and hormonal changes known to have taken place during pregnancy and from the birth process.

Healing time for collagen and connective tissue will depend on the extent of any tissue damage incurred during the birth process. Collagen repair needs appropriate levels of force applied to assist healing which starts



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in the early weeks following injury and can extend over 12 months or more.

When training post-natal clients, it is advisable to consider their recovery in terms of stages.

### 0 – 6 weeks

#### Early post-natal recovery exercises

Some clients will have access to a physiotherapist early post-birth, others will not. To prepare your client for this stage, you can pre-program during the third trimester of their pregnancy.

Home programs can include:

- Pelvic floor exercises
  - gently initially, and building up endurance and hold time steadily
- ensure relaxation between voluntary contractions
- Post-natal abdominal wall bracing
  - this can be done in sitting, standing and side-lying and, when comfortable after 3-4 weeks, in the hands and knees position, although some clients may prefer to wait until they have seen you before introducing this latter option.
- Pelvic tilts and back mobility exercises
- Thoracic mobility exercises
- Neck and shoulder stretches
- Walking.

### REPRESENTATION OF REGAINED SOFT TISSUE STRENGTH

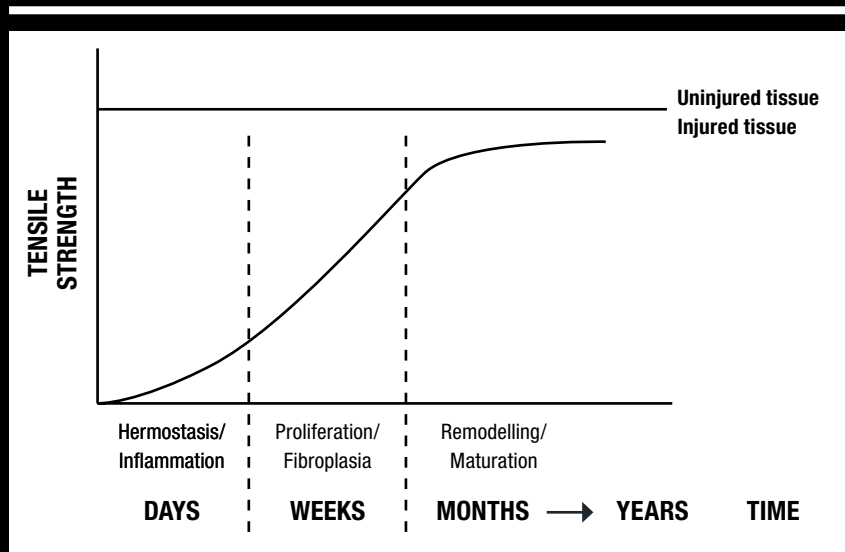


Image source: [electrotherapy.org/modality/soft-tissue-repair-and-healing-review](http://electrotherapy.org/modality/soft-tissue-repair-and-healing-review)

Post-birth recovery from a caesarian section can take time with wound healing occurring in the first 2-3 weeks, then scar tissue formation deepening over the next 2-3 weeks.

### 6 weeks to 3 – 4 months

#### Regaining core and pelvic floor control and building fitness

During this time your client's pelvic floor strength, endurance and supportive capacity is being regained, so it is essential to work closely with her to ensure there is protection of the pelvic floor during training.

Focus on:

- rebuilding abdominal tone, strength and endurance capacity
- shortening the abdominal wall
- ensuring no strain on an excessive abdominal separation (if < 2cm, and no tenting or doming of the separation, then this doesn't require caution)
- enhancing recovery of excessive abdominal wall separation.

This is done through appropriate post-natal levels of abdominal wall retraining and load progressions. Progressively build strength, resistance and cardio training levels that can be adjusted to the client's energy levels, core recovery levels and desired outcomes.

#### One main precaution

Studies show that in Australia one in three women who have ever had a baby wet themselves, according to The Continence Foundation of Australia. Protection of the pelvic floor to promote optimal recovery when working with post-natal women will help to protect your client from becoming one of these women.

## MATCHING YOUR FEMALE CLIENT'S TRAINING TO HER LIFE STAGE

Click [HERE](#) to listen to the UK's leading female health and fitness educator, Jenny Burrell, talking with The Fitness Industry Podcast about post-natal recovery, pelvic floor screening and the need for self-compassion.



One in two women who have had a baby have some degree of pelvic organ prolapse. The Boat Theory is a good way to explain to women about their pelvic floor recovery process.

Imagine that 'the boat' represents the internal pelvic organs and that as it sits on top of the water it is attached by ropes to the jetty, which are the ligaments that support the pelvic organs. The pelvic floor is the water level, so when the pelvic floor has normal supportive tone, there is no tension on the ropes.

After pregnancy and birth, if the pelvic floor muscles are stretched, the 'water level is lower'. If jumping, running, bouncing or impact exercises are added, tension will soon be placed on the 'ropes'. With time, this could cause the ropes to overstretch, and if the 'water level' remains lower, the 'boat' or pelvic organs are less supported. This can lead to a pelvic organ prolapse, if the pelvic floor is not restrengthened and the supportive internal ligaments not protected. This can occur for some women soon after the birth, or even months later. For others, a prolapse can develop years later.

Pelvic floor retraining and protection to improve pelvic floor function during the post-natal recovery stages can help to reduce the risk of a pelvic organ prolapse from occurring.

### 4 months to 8 - 12 months

#### Testing and strengthening with training progressions

Depending on the rate of recovery of your client, it can take between four to six months or longer for them to feel 'back to normal' and to be able to return to previous activity levels. Some women may choose to modify

### THE BOAT THEORY

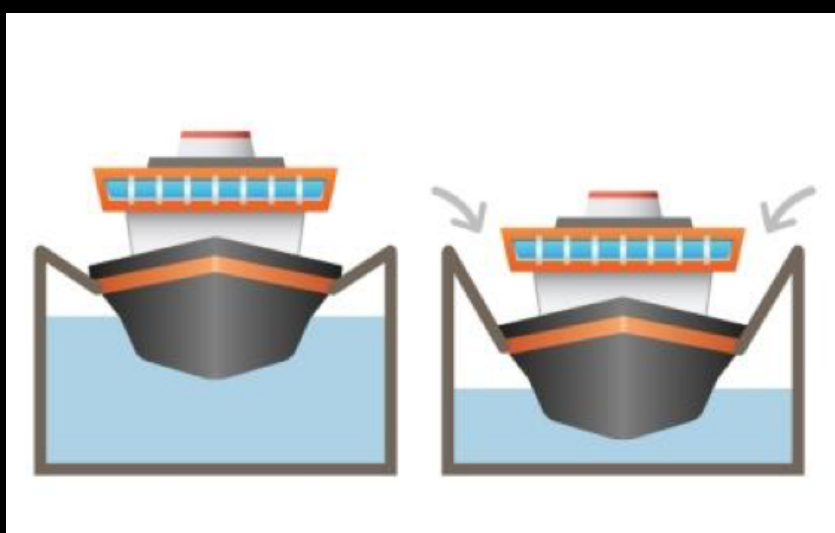


Diagram reproduced with permission from The Continence Foundation of Australia



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## THE QUICK READ

- Post-natal recovery can be likened to recovering from a sporting injury
- 1 in 3 women who have ever had a baby experience urinary leakage, and training of the pelvic floor will help to reduce the risk of this
- In the first six weeks early post-natal recovery exercises include walking, pelvic floor and post-natal abdominal bracing and back stretches
- From 6 weeks to 3-4 months, the focus should be on regaining core and pelvic floor control and building fitness
- From 4 months onwards, progressively build intensity and training load
- At each level of increased training, clients should not experience any 'warning signals' from their recovering body during or after training, such as back or pelvic pain or pelvic floor issues.



## FURTHER READING

1. Breastfeeding Australia: [www.breastfeeding.asn.au](http://www.breastfeeding.asn.au)
2. The Continence Foundation of Australia: [www.continence.org.au](http://www.continence.org.au)
3. Fitness Australia's Pre and Post-Natal Exercise Guidelines [https://bp-fitnessaustralia-production.s3.amazonaws.com/uploads/uploaded\\_file/file/219/Pre-and-Post-Natal-Exercise-Guidelines.pdf](https://bp-fitnessaustralia-production.s3.amazonaws.com/uploads/uploaded_file/file/219/Pre-and-Post-Natal-Exercise-Guidelines.pdf)
4. Tania Tian, Stephanie Budgett, Jackie Smalldridge, Lynsey Hayward, James Stinear and Jennifer Kruger (2017). Assessing exercises recommended for women at risk of pelvic floor disorders using multivariate statistical techniques. *Int Urogynecol J.* 2018 Oct;29(10):1447-1454. doi: 10.1007/s00192-017-3473-6. Epub 2017 Sep <https://www.ncbi.nlm.nih.gov/pubmed/28905083>

their program intensity levels due to sleep pattern alterations affecting energy levels, or because they still feel that their pelvic floor needs further recovery time and specific attention.

Clients returning to running, higher impact exercise and sport can progressively build their intensity and training load. At each level of increased training, they should not experience any 'warning signals' from their recovering body during or after training.

These can include:

- back pain
- pelvic floor or vaginal heaviness or pressure
- leakage of urine or difficulty controlling their bladder
- pelvic joint or ligament pain
- lower abdominal wall discomfort, pressure or pain.

If any of these occur during or after training, including up to several days after training, then step down their intensity for at least one to two weeks before rebuilding it.

If any of these symptoms continue, refer them to a local physiotherapist working in women's health or back to their GP.

When a player is recovering from a sporting injury, such as a knee or ankle injury, they will be tested before returning to the full game. They may attend training

partially after a rest period, then build their training time and intensity back up again, before fully testing if they are ready to perform in the game. Similarly, post-natal women should listen to their bodies, take time to recover post-birth, and rebuild their core and pelvic floor fitness levels, along with their resistance and cardio fitness, to avoid ongoing symptoms from overtraining too soon. **N**

## MORE?

To develop your expertise in training pregnant and post-natal clients, **CLICK HERE** to find out more about Network's range of courses, accredited for CECs and CPDs.

### **Dianne Edmonds**

*A physiotherapist based in an obstetric GP clinic, Dianne is a course creator, Women's Health Ambassador for Australian Fitness Network and the Director of The Pregnancy Centre. She has worked in women's health and fitness for 25 years and was integral in the development of the Pelvic Floor First resources.*