

the **Birth** and **Beyond**

When Ultra-Fit reader Elly Rutt approached us for help in staying fit and healthy during the pre and post natal stages of her second pregnancy we contacted Wendy Powell of No More Excuses, a personal training organisation specialising in exercise and diet through all the stages of pregnancy. No More Excuses personal trainer Sonja was soon on Elly's case and her reports appeared in volume 17 number 2 and volume 17 number 3 of Ultra-Fit. Sonja's final report covers the arrival of Chloe and Elly's journey back to fitness.



THE BIRTH AND THE FIRST SESSION

I popped round to see Elly & baby. All was going good, apart from Chloe suffering from reflux, so not feeding or sleeping well. The birth went very smoothly & quickly at home with Chloe being born 4 hours before Elly was due to go into hospital for an induction, which she did not want, so she was very lucky.

She went into labour in the early hours of the morning & called for the midwife. When she arrived, Elly told her husband to go back to bed for a while. However, upon examining Elly, the 1st midwife made a quick decision to call for the 2nd midwife as the baby was coming soon! Just 2 hours later, Elly gave birth to a whopping 10lbs baby girl!

It was only once the baby had been born that her parents (who were sleeping upstairs!) awoke, so she must have been very calm & quiet indeed! Big brother Luke came downstairs for breakfast to a big surprise!

Elly has been out walking & doing her kegels. She was due to have her check-up at end of last week to get the all clear. I've got next Tues pencilled in for our first post-natal session & am just about to txt her to confirm.

MOVING ON

Elly is doing very well. She's been out running 3-4 times per week with Chloe in the buggy & is really enjoying being back out there, although she sometimes struggles to find time for stretching what with a hungry baby demanding it's next feed!

She's also coping well with the strength programme I've set her, although she needs a little more motivating in this area & tells me she 'hates me' when I make her do some of the exercises - she's a glutton for punishment though, insisting we squeeze another session into the diaries for next week!

Elly has not had any problems with her pelvic floor since the birth, which is a big change from last time. Nor does she have any separation of her abdominal muscles. If you are reader who is concerned that you may have separation or you are a personal trainer with a pregnant client please see Figure 1 for guidelines on this subject.

I'm suitably impressed with all the working out she's been doing, especially since she's been busy marking exam papers whilst Chloe sleeps. She goes back to work full-time in 2 - 3 weeks time, but is already making plans to squeeze an early

morning run into her routine, so as doesn't miss out. Roland (her husband) doesn't like exercising first thing in the morning, so he goes out for a swim or bike ride in the evening, which should work well. Chloe is a lovely little baby who slept beautifully whilst we were working out as a result of her first swim with mum that morning! See Figure 2 for full details of Elly's post natal programme.



FIGURE 1

Notes to personal trainers on abdominal muscles splitting during pregnancy and abdominal exercise following caesarian section:

Diastasis Recti

In about 30% of pregnant women, the central abdominal muscle will separate to accommodate the growing baby. It is important to determine whether or not there has been a separation, as certain abdominal exercises can make the situation worse.

Testing for separation:

Ask the client to lie supine with no pillow under her head. She should lift her chin and shoulders, and then you palpate the gap at the level of the umbilicus, and also 2 fingers above and 2 fingers below. A gap equal to the width of 2 fingers is considered positive. Below the umbilical line, separation of one finger may be significant.

If the test is positive, this client should avoid traditional sit-ups and instead do the following corrective exercises:

- Lie flat on your back with knees bent and hands folded over your abdomen to support then muscles. Inhale, and while slowly exhaling, raise your head to your chest. Hold for 2 normal breaths, and then gently lower to the floor. Repeat 10 times.
- As above, but only head is lifted off the floor as hands gently pull the rectus muscle towards the mid-line. Hold and repeat 5-10 times.

When testing and demonstrating self-testing, always explain what you are going to do, and ask permission before palpating the client.

Diastasis recti is a condition, which whilst extremely common, worries many women, unnecessarily. They may have been told that their stomach muscles have irreparably ‘split’ or ‘torn’, and they may believe they have an ‘injury’ which cannot be rectified and should not be exercised.

Women should be reassured that the separation of these muscles is perfectly normal, and why it happens:

The fibres of the rectus muscle are designed to contract and lengthen in a vertical direction; however pregnancy requires the abdominal wall to expand horizontally. Since the muscle is not particularly elastic in the transverse

direction, the linea alba gradually thins and widens. Relaxin and progesterone also contribute to the occurrence of diastasis, encouraging a loosening effect on the fascia and a reduction in cohesion of the collagen fibres. Other contributing factors include foetus size and number, placenta size, amount of amniotic fluid, number of previous pregnancies, weight gain, etc. It is not necessarily true that strong abdominal muscles will not separate.

After multiple pregnancies where the muscle has separated, or after a diastasis which has been incorrectly exercised post-partum, complete realignment may not be achievable. Again, reassure your client that this is not a cause for concern and will not cause long-term damage or weakness. Traditional sit-ups, twists, and movements which will make the condition worse should be avoided, however most core work can continue to be performed effectively and safely.

Caesarian Section

Another common misconception is that after a Caesarian, the stomach muscles have been irreparably cut, and cannot be restored. Trauma to the abdominal muscles during a c-section is not as severe as many women believe: the muscles themselves are not cut. An incision of approx. 10cm (i.e. the same size as full vaginal dilation) is made just above the pubic bone, which cuts through the rectus sheath and the 2 sides of the rectus muscle are drawn apart. After the baby is lifted out, the rectus sheath is repaired and the muscles re-aligned.

Although the muscles themselves have not been cut, the layers of aponeurosis (sheet-like fibrous membrane, resembling a flattened tendon that serves as a fascia to bind muscles together) have, and contraction of the transverse abdominus muscle may cause pain or discomfort. Tingling and numbness will be experienced around the scar site, with sensation returning in patches: full sensory recovery could take up to 6 months.

Walking as soon as possible should be encouraged, to increase circulation and speed healing. Deep breathing, abdominal compression and Kegels can all be resumed early in the rehabilitative process. The degree of discomfort, fatigue and motivation will determine activity levels. Vigorous activity should be avoided for at least 6 weeks (up to 10 weeks) and any activity causing pain should be avoided.

FIGURE 2

Client: **Elly Rutt**
 Trainer: **Sonja Lloyd**
 Programme Type: **Post-Natal**
 Programme commenced: **22/05/2007**

Goals

- To increase cardiovascular fitness to previous level.
- To lose additional ‘baby’ weight over the next few months.
- To re-build overall body strength & muscle definition.
- To continue working on posture, pelvic floor & core strength.

Training Summary

The programme will focus on your overall body strength, whilst specifically working on re-building your pelvic floor & core strength. In addition, I will provide you with guidance on the frequency, duration & intensity of your cardiovascular exercise.

Cardiovascular exercise – most days of the week, varying intensity depending on energy levels and ensuring 2 – 3 days of low impact.

Pelvic floor exercises (Kegels) must still be done DAILY, ideally 3 times.

Steady jog/run outside (or on the treadmill) for 25 – 45 mins (RPE level 7)

OR

Intervals session on treadmill for 25 - 30 mins with incline set to 1.5.

(Warm up for 5 mins (RPE 5), run 3 mins fast (RPE 8), 2 mins slow (RPE 6), repeat 3 times & then cool down for 5 mins, slowing to a jog, then brisk walk)

OR

Intervals session on bike or rower for 30 mins.

(5 min warm up (RPE 5), fast 1 min (RPE 8), slow 1 min (RPE 6), repeat 10 times & then cool down for 5 mins, slowing down gradually).

OR

Brisk walking outside for 30 minutes to 1 hour (RPE level 5).



Spinal Stretch - cat stretch with abdominal contractions

“Walking as soon as possible should be encouraged, to increase circulation and speed healing”

Speedy Kegels*	Squeeze and lift the pelvic floor muscles as strongly and as quickly as possible. Just squeeze and let go. Allow a 3 second rest between each exercise. Repeat 10 times. (Do this routine twice a day)
Squeezy Kegels*	Squeeze the pelvic floor muscles and hold for a slow count of five – work your way up to ten. Relax and rest for 10 seconds. Repeat 5-10 times

Strength, core and postural work – once weekly

RESISTANCE & CORE STRENGTH TRAINING

Warm Up	Walking on the spot, adding shoulder shrugs & circles, followed by butt kicks & knee highs.		
Dynamic Stretches	Hip & leg swings (forward & back, then side to side), alternate lunge with controlled torso twists, shoulder & arms swings with mini squat.		
Proprioception (balance) & Core	Balance On One Leg	Hold for 30 secs to 1 minute on each leg x 1 set	Stand upright, feet hip width apart, knees slightly bent, shoulder blades back & down, eyes straight ahead. Focus on spot & bring one foot off the floor to balance on the other. Hold, then swap legs.
Buttocks, Hips, Quads & Shoulders	Alternate Lunges with Front & Lateral Raises	10 - 12 of each leg (& each shoulder exercise) x 2 sets	Standing with shoulders back, chest open, eyes straight ahead, holding a weight in each hand by your sides. Take a large step out with the right foot & bend both knees to lower towards the floor at the same time as raising your arms straight out in front of you, at shoulder height. Keep knees behind toes at all times. Lower weights as you push back. Repeat on the left leg, lifting weights out to the sides this time (only to 70 degrees). Lower & repeat each action.
Chest, Biceps & Triceps	Dumb Bell Chest Press on Swiss Ball	15 - 20 reps x 2 sets	Lie supine (face up) with your upper back & shoulders resting on the ball & feet on the ground, hands at the side of your chest with dumbbells. Engage your core & straighten your arms, lifting the weights up from your chest. Return to start & repeat.
Quads, Hamstrings & Glutes	Squats with Medicine Ball Overhead Raise	10 each side, x 2 sets	Stand upright with feet hip width apart, chest open, shoulders back & belly button drawn in towards spine. Squat down, touching MB to the ground at one side, keeping chest high. Rise back up, twisting & raising the ball above your head on the opposite side. Repeat x 10, swap sides.
Middle Back	Swiss Ball Reverse Fly	15 - 20 reps x 2 sets	Rest your upper chest on the ball, feet or knees on the ground to balance. Lift weights out to the side & lower in front of you, squeezing shoulder blades together. Repeat.
Pelvic Floor & Core	Swiss Ball Pull-Ins	8 - 10 reps x 2 sets	Kneel in front of ball & rest fists on the ball. Contract abs & slowly push the ball away as you drop your hips & backside, so spine is in neutral, hold, then pull back in, repeat.
Quads, Glutes & Biceps	Swiss Ball Wall Squats with Bicep Curl	15 - 20 reps x 2 sets	Place the ball between your lower back and the wall with your shoulder blades relaxed back & down. Hold a weight in each hand in front of your thighs, palms forward. Bend your knees into a seated position against the ball, keeping your back straight & knees behind toes. At the same time, raise the weights up towards your shoulders, bending at the elbows & keeping them close to your sides. Be careful not to 'lock' your knees out.
Upper Back	Dumb Bell Upright Row	15 - 20 reps x 2 sets	Stand upright, feet hip- distance apart, tailbone tucked under, shoulder blades back and down. Lift weights to chest height, elbows out to the side, lower & repeat.
Quads, Glutes, Calves & Core	Side Jumps (over Medicine Ball)	5 - 10 each side x 2 sets	Standing with feet together to one side of the ball, engage your core & hop sideways, with both feet, over the ball. Hop back again. Repeat.

Hamstrings & Core	Swiss Ball Leg Curls	12 - 15 reps x 2 sets	Lie on your back with your feet up on the ball. Push your hips up so you're resting on your shoulders. Pull the ball in underneath you by bending your knees. Keep hips high & abs tight. Push away & pull back in without lowering your body.
Middle & Upper Back, Shoulders & Arms	Single Arm Cable Pull	10 - 15 on each arm x 2 sets	Stand in a split stance with a cable end in each hand at chest height. Keeping elbows high, draw your right hand back at the same time as allowing your left arm to extend out in front of you, as right arm extends out in front, left hand draws back, repeat.
Lower Back & Core	Kneeling Supermen	10 each side x 1 set	From an all-fours position, hands under your shoulders, knees under your hips. Take a deep breath, and as you exhale, tighten your abdominals and raise your right arm straight out in front of you. At the same time, extend your left leg straight out behind. Hold for 1 - 2 secs.
Lower back	Dorsal Raises	15 - 20 Reps x 1 set	Lying prone, arms by your sides, palms up, feet hovering off the floor, belly button drawn in towards spine, SLOWLY raise chest & shoulders off the floor & then lower back down towards the floor.
Core	Plank	Hold for 30 - 45 seconds x 1 set	Support bodyweight on lower arms and knees. Keep spine in neutral. Hold the position, contracting the abdominals and breathe deeply.
Hips, Inner Thighs, Pelvic Floor & Core	Supine Bridging (with disc between knees)	15 - 20 reps x 1 set	Lie on your back with your feet on the floor, hip width apart, knees bent to 90 degrees. Place a disc or cushion between knees. Keep head, neck & arms relaxed. Fire the core and sustain. Squeeze the ball/disc and bridge your hips up until spine is in neutral. Hold for 2 - 4 seconds, rest back down and repeat.
Spinal Stretch	Cat Stretch with Ab Contractions	5 reps x 1 set	From an all-fours position. Exhale & round your lower back. Contract your abdominals. Relax your head & neck as your head goes down. Hold for 5 seconds, then inhale & go back to the starting position - keep back straight, don't over-arch.
Core	Leg Slides	10 each leg x 1 set	Lying supine (face up), hands in the small of the back, spine in neutral, drawing belly button in towards spine, knees bent, feet on floor, slowly straighten one leg while sliding it along the floor & breathing in, return to start position, whilst breathing out & imagining your stomach drawing leg back in, repeat with other leg.
Core	Supine Marches	10 each leg, slowly x 1 set	Exactly the same as above, but with slow marching instead of leg slides. Keep one foot on the floor at all times.

Hi Wendy,

So good to hear from you! As I am sure that you have heard from Sonja, things went very well with the labour and birth, very fast, but with no complications and I couldn't have asked for a better labour. I was on my feet for the whole labour, which is probably why it was so fast, but all those squats and lunges really paid off! I think that the core exercises helped a lot as well as I was only pushing for 5 minutes and had very little pain relief throughout. (paracetamol to start with and about 5 puffs on gas and air when I was in transition). All is all I couldn't have asked for better.

As for post natal.. I have been good! I have got back to running again this last week with the go ahead from my doctor and chiropractor, so I have completed 4 runs this week. I am getting back into doing abdominal work as well, but I think that that is going to take much longer to get any real benefits, there is so much loose skin as I looked like Mr Greedy at the end of the pregnancy. (I tell myself that it is loose skin anyway, it could well be fat!)

So all in all I am very happy and so pleased with how everything turned out. I can't thank you and Sonja enough for all your help and advice. I have so much energy now, I can cope quite easily with the demands of motherhood. I put that mainly down to the good diet and the exercise, so it was well worth it!

Thanks again



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