



WHAT ARE THE ADVANTAGES TO CARRYING OUT LOW PRESSURE FITNESS (LPF) PROGRAM DURING POSTPARTUM?

Many women are concerned about what type of exercise they should do for labor recovery. One of the most complete options for our moms is the practice of Low Pressure Fitness program. LPF Hypopressives exercises were created as a healthier alternative to traditionally prescribed exercises. There are three main aspects of pregnancy recovery; abdominal, postural and pelvic floor. LPF simultaneously targets all three areas. One of the recommendations by the Physiotherapist Spanish Association (AEF), in connection with immediate and late postpartum is the practice of Low Pressure Fitness. The AEF made the following comments about Hypopressives: "Ultimately, it's a holistic method that sees the body as a whole and envisions a type of global training that integrates position and respiration, with special attention to the woman's body". LPF Hypopressive exercises are very beneficial for many other vital aspects in postpartum recovery. The following is a list of ten reasons to carry out LPF after labor:

1. POSTURAL RECOVERY

A proper posture has an influence on the postural tension of the back muscles, known as “antigravitational.” When there is deficiency in the back musculature, along with other risk factors (life style, overweight, sedentary lifestyle), long-term postural and even structural dysfunctions may appear.

The postural patterns and exertion of the spine’s stabilizing structures is an important aspect of LPF exercises. Postural recovery can be felt after just one month of LPF exercises. Some studies, such as Dr. Caufriez and his team (2006), detail the repositioning of the gravity axis projection, reduction of lumbar curves (more pronounced during pregnancy) and a greater postural comfort after regularly practicing LPF exercise.

2. REDUCTION OF BACK PAIN.

Back pain etiology is linked to physiological, anatomical, and mechanical changes which take place during pregnancy. <http://www.fisioterapia-online.com/articulos/dolor-de-espalda-en-embarazadaspuedo-ir-al-fisioterapeuta>
Lumbopelvic pain is prevalent during pregnancy, around 45% during pregnancy and 25% during postpartum (Wu and col., 2001). Pain usually appears in the lumbar region or the front of the pelvis, due in part to changes on the stability of the pelvis, and muscular and ligament tissues systems. For this reason, it is recommended to tone the abdominoperineal muscles and to perform postural re-education through LPF exercise program.



3. DIASTASIS RECTI IMPROVEMENT

Abdominal diastasis is very common during and after pregnancy. Between 30% and 70% of women experience abdominal diastasis during and after pregnancy. Epidemiological data varies greatly as there is still no consensus as to what value is considered clinically relevant (Rett, Braga, Bernardes, Andrade, 2009). On a global level, a 2.5cm gap can be considered diastasis. During pregnancy, the muscles become separated from the linea alba to make room for gestation.

The strong respiratory and postural action derived from LPF techniques have a direct impact on the abdominal musculature, slowly reverting the “corset-effect” lost during pregnancy. The following image shows this “corset-effect” on the abdominal muscles diastasis:

In the article about “How to Improve Abdominal Diastasis with Low Pressure Fitness” (www.lowpressurefitness.com)



4. ABDOMINAL MUSCULATURE STRENGTHENING AND TONING

Two of the fundamental notions and foundations of LPF are; (1) postural work, which impacts the spine's stabilizing musculature and the muscles of the abdominal wall and (2) the reduction in the waist circumference which is a consequence of the muscular strengthening and postural relocation. Waist circumference reduction is noticed with very few sessions; Dr. Rial (2014). Reductions between four and ten centimeters within a period of two to six months of practice are frequent in clinical practice and have been backed by other studies, such as Dr. Rial (2013) and Dr. Lidón (2014) and even students' experiences: <https://itahipopresivos.wordpress.com/2012/09/16/experiencia-hipopresiva-de-una-alumna-2/>.

5. RECOVERING THE PELVIC FLOOR TONE AND THE SEXUAL FUNCTION

It's common after pregnancy to suffer from pathologies of the pelvic floor such as urinary incontinence, organ prolapse, pelvic pain or simply a reduction in the strength and tone of the pelvic floor muscles. <http://www.fisioterapia-online.com/articulos/el-suelo-pelvico-de-verdad-que-hay-musculos-ahi-dentro>.

The pelvic floor tone enhancement was described by the VP Physiotherapy in Pelvipereineology Spanish Association, Sara Esparza (2007), via a hypopressives exercises protocol applied on a group of 100 women (average age 36 years) who suffered from urinary incontinence and pelvic floor low tone. The study concluded that after 20 minutes a day of hypopressives exercise during a period of six months, there was an increase of the contractile strength (20%), the base tone (58%) and the load tone or "suspension capacity" in over 48% of the trainees.

The musculature strength and tone are major factors in maintaining a "fit" perineum. A greater toning of the pelvic floor along with a better proprioception of the same area will help to recover the sexual feelings that are greatly reduced as a result of labor.

6. HELPS VISCERAL RELOCATION

Nuria Sans, manager of the Dexeus Hospital Pelvic Floor Physiotherapy Unit, states the efficiency of LPF exercise in visceral organs treatment.

This could be due to the "suction effect" of LPF over the abdominopelvic area as a consequence of the diaphragmatic aspiration taking place during the exercise, which in turns reduces the intra-abdominal pressure. This reduction generates suction over the pelvic organs diminishing the ligamentous tension. This fact has been verified through magnetic resonance imaging (MRI) (Dr. Latorre and col. 2011), which the behavior of the abdominal musculature, uterus and vagina during the diaphragmatic aspiration exercise can be observed. Additionally, the angle between the uterus and the vagina varies in comparison to the resting position via ultrasound; the same authors verify a change in the position of the perineal viscera where the angle between the urethra and the vaginal wall in the rest position increases in 12°, from 65° to 77° during the hypopressives exercise.

For those of you who wish to see this "suction effect" live, the following video shows the impressive suction or vacuum that takes place on a woman's pelvic viscera during LPF: www.lowpressurefitness.com



7. REDUCTION IN URINARY INCONTINENCE SYMPTOMS

Urinary incontinence (UI) is something very common during postpartum and for women of any age. LPF is an effective treatment of UI which causes so many problems in the affected woman's lifestyle. The results of the studies published by Dr. Rial and Pinsach (2010), shows that women with an average age of 45, practicing LPF 30 minutes a day, three times a week over a three month period provided a greater reduction of UI symptoms. Another study (Dr. Rial, 2013) backs up this improvement with 30 minutes of LPF just one to two days a week during a twelve week period.

8. VASCULARIZATION AND VENOUS RETURN IMPROVEMENT

During pregnancy, peripheral resistances are reduced as a consequence of hormonal changes. There is an increase of the intra-abdominal pressure due to growing uterus, blood volume and other factors which contributes to the appearance of varicose veins in the lower limbs and the pelvis. In order to activate the musculature and facilitate the venous return, it is essential to exercise during postpartum. In this area, LPF is shown to be very efficient for the recovery of issues linked to the venous return, which frequently occur during the last phases of pregnancy and postpartum. It has also shown a positive impact on the lower limbs vascularization, as suggested in the study carried out by Thyl and colleagues (2009). Thyl's study focused on the improvement achieved through the hypopressives technique on the femoral venous return measured through echo-doppler. In the following video, you can clearly hear the increment in the vascularization frequency during LPF compared to other actions through echo-doppler. <https://www.youtube.com/watch?v=r790zIYIS7Q>

9. HELPS TO PREVENT POSTPARTUM DEPRESSION

In effort to slow down or prevent postpartum depression, it's important to stick to a healthy physical exercise program such as LPF. Exercise helps to achieve that feeling of well-being, which is necessary to reduce anxiety and enhance self confidence. A study by Dr. Soriano and Dr. Col. (2014) about women's subjective evaluation after an 8 week hypopressives program shows the following:

- At the beginning of the study, 90% of women perceived their body with negative connotations
- At the conclusion of the study, 89.48% felt harmony and positive changes in their abdominal muscles, 75% in their pelvic floor, and 100% postural improvement and pain reduction.

All these perceptions help to improve the woman's self-esteem and confidence during pregnancy and postpartum where constant hormonal changes and numerous emotional situations are taking place.



10. LABOR SURGERY IMPACT REDUCTION

Women who have undergone surgery such as cesarean section or episiotomy, LPF helps minimize the impact on intra-abdominal pressure reduction and myofascial tissue traction, helping to diminish tissue adhesions and internal scars.

11. INTESTINAL TRANSIT IMPROVEMENT

Women tend to be very irregular and are prone to constipation. Things like pregnancy, labor and environmental factors could lead to intestinal transit problems for some moms. Diet, exercising and proper bowel movements on a regular basis are key points to fighting constipation. LPF can significantly improve visceral movement and reducing the intra-abdominal pressure.

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Bibliography

- Caufriez, M., Fernández-Domínguez, J.C., Fanzel, R. & Snoeck, T. (2006). Efectos de un programa de entrenamiento estructurado de Gimnasia Abdominal Hipopresiva sobre la estática vertebral cervical y dorsolumbar. *Physiotherapy*, 28(4), 205-16.
- Spread, S. (2007). Gimnasia Abdominal Hipopresiva. Congreso franco español del suelo pélvico y pelviperineología. San Sebastian.
- Latorre, G., Seleme, M., Resende, A.P., Stüpp, L. y Berghmans, B. (2011). Hipopressive gymnastics: evidences for an alternative training for women with local proprioceptive deficit of the pelvic floor muscles. *Fisioterapia Brasil*, 12(6), 463-466.
- Mota, P., Pascoal, AG, Sancho, F, Bø, K. (2012). Test-retest and intrarater reliability of 2-dimensional ultrasound measurements of distance between rectus abdominis or women. *J Orthop Sports Phys Ther*. 42(11):940-6.
- Rett, M.T., Knicker, M., Bernardes, N., Andrade, S. (2009). Prevalence of diastasis of the rectus abdominis muscles immediately postpartum: comparison between primiparae and multiparae. *Rev Bras Fisioter.*, 13(4), 275-80.
- Rial T. (2013). Efectos de la gimnasia hipopresiva en la incontinencia urinaria de la mujer adulta. Facultad de Ciencias de la Educación y el Deporte. Departamento de Didácticas Especiales. Universidad de Vigo. Tesis Doctoral.
- Rial, T. y Pinsach, P. (2010). Entrenamiento abdominal e incontinencia urinaria. VI Congreso Internacional de la Asociación de Ciencias del Deporte, Elche: Alicante.
- Rial, T., Ribeiro, L., Garcia, E. & Pinsach. P. (2013). Efectos inmediatos de una sesión de ejercicios hipopresivos en diferentes parámetros corporales. *Cuestiones de Fisioterapia*, 43(1), 13-21.
- Soriano-Segarra, M.L. (2014). Efecto de la Gimnasia Abdominal Hipopresiva sobre el tono del suelo pélvico y otros parámetros antropométricos y funcionales relacionados con el riesgo cardiovascular en mujeres. Facultad de Ciencias de la Actividad Física y el Deporte. Universidad de Castilla la Mancha. Tesis Doctoral.
- Soriano-Segarra, M.L., Corbí, B., & González-Millán, C. (2012) Valoración subjetiva de las mujeres tras un trabajo de Gimnasia Abdominal Hipopresiva. I Primeras Jornadas Nacionales de Psicología del Deporte de la UCAM: Murcia.
- Thyl, S., Aude, P., Caufriz, M., Balestra, C. (2009). Incidence of l'aspiration diaphragmatique associée à unites apnée expiratoire south the circulation of retour veineuse fémorale: étude even échographie-doppler. *Kinésithérapie scientifique*, 502, 27-30.
- Wu, W., Meijer, O.Wuisman, P. et al. (2001). Pregnancy related pain in the pelvis. *Nederlands Tijdschrift voor oefentherapie-mensendieck*, 1, 25-34.