

POSTPARTUM REEDUCATION

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Guidelines Department

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GUIDELINES

I. INTRODUCTION

These guidelines are limited to reeducation during the postpartum period and are aimed at all professionals involved in such reeducation. They do not cover reeducation during pregnancy even though postpartum reeducation follows on from prenatal medical care. They concern the period following vaginal delivery, with or without intervention, or following Caesarean section. Most of these guidelines are based on agreement among professionals since the level of evidence of published trials is low.

The main areas that might require reeducation after pregnancy and labour are:

Perineum and incontinence

There may still be pain 2 months (more than 20% of women) and 12 months (10%) after delivery. The maximum reduction in perineal strength occurs at 6-8 weeks. Between 15% and 40% of women experience urinary incontinence during the postpartum. Those who are incontinent before or at the start of pregnancy are more likely to be affected. A third will recover spontaneously in 12–18 months. Between 1% and 5% of women experience faecal incontinence.

Spine and pelvic muscles

Lumbar lordosis is usually significantly reduced between the second trimester and the beginning of the third trimester, then increases during the first few months postpartum. None of the studies addressed the relationship between posture and postpartum pain. More than a third of women continue to experience lower back and/or pelvic muscle pain (pubic pain and posterior pelvic pain) several months after delivery.

Abdominal muscles

The most severe pain is caused by scarring and is triggered by movement. Diastasis of the rectus abdominis muscles persists in more than half of all women at 5–7 weeks postpartum. When the diastasis is more than 2 cm, the muscles can no longer work at maximum strength. Lengthening of the abdominal muscles makes the trunk flexor muscles weaker than the extensors. The flexor-extensor ratio at 6 months postpartum is 0.5, compared with the standard value of 0.7 in a normal population.

II. GLOBAL APPROACH TO REEDUCATION

A global approach is needed for postpartum reeducation, after an individualised assessment and definition of specific targets for each patient. The professional nomenclature artificially separates perineal reeducation from abdominal reeducation, with specialist practice in each field.

A global approach to reeducation concentrates on the three above-mentioned areas:

- perineum and sphincter;
- spine and pelvis;
- abdominal muscles.

III. POSTPARTUM ASSESSMENT BEFORE REEDUCATION

The doctor decides whether reeducation has to be prescribed in the light of the woman's symptoms. A workup by a reeducation specialist should include assessment of the pelvic floor, abdominal muscles and spine, including an assessment of pain in each of these areas. The workup should be tailored to the individual's symptoms.

History-taking and clinical examination before reeducation should :

- assess pain;
- determine and, if possible, quantify any symptoms in the three main areas (perineum, pelvis and spine, and abdominal);
- eliminate any complications (scar dehiscence, thromboembolism, neurological complications) that might contraindicate certain reeducation methods;
- obtain baseline values for a comparison with final assessment values in order to measure the results of reeducation.

Assessment of pain

A history should be taken to determine the location of any pain, its frequency, any trigger factors, the type and intensity of perineal, pelvic, spinal and abdominal pain, and to assess any functional repercussions on the woman's everyday and sexual life.

Assessment of incontinence

To establish a treatment strategy, a reeducation specialist needs to know:

- the mechanism of incontinence (stress, urgency);
- the patient's environment, lifestyle (sports, social activities), disability (locomotion), wishes and motivation (expectations).

In the case of incontinence, history-taking should be completed with:

- a local and regional examination (tissue quality, scarring, vaginal discharge);
- *a neurological examination* to study the sensory territories of the perineal region (perineal hypoaesthesia). This may suggest a peripheral disorder of the pelvic floor;
- a manual assessment of perineal muscle strength, known as muscle testing. It reflects contraction quality and the patient's ability to use perineal muscles, with or without extraneous contractions of other muscles. It can be used to evaluate the strength and endurance of the pelvic floor muscles, and to detect any disorders in the command sequence. It is an aid in choosing bladder-training techniques and it acts as an indicator for monitoring the contractile qualities of the muscle (strength and endurance). It measures improvement in muscle strength rather than efficacy of bladder training. During the postpartum, a manual assessment should check that the woman can tighten her perineal muscles during voluntary increases in abdominal pressure;
- *an assessment of urinary incontinence*. This can take the form of a clinical symptom score such as the MHU scale (*Annex 1*) or leakage index (5 grades);
- *a voiding diary*;

- *a measurement of quality of life*, e.g. the Contilife[®] scale (*Annex 2*) or the social activity index (10 grades).

Assessment of the pelvis and spine

A history should be taken to determine:

- the woman's awareness of the role of posture in preventing spinal pain, particularly in relation to her new activities (breastfeeding, carrying the baby, carrying baby equipment, etc);
- situations where she experiences major functional discomfort.

The assessment should attempt to differentiate between pain of pelvic origin (pelvic pain, sacroiliac pain or pain in the pubic symphysis) and pain of spinal origin (muscular or vertebral pain). The active straight leg raise (ASLR) test is one of the tests described in the literature that is reliable in detecting pelvic pain during the postpartum. The test involves lifting the foot 20 cm above the table without bending the knee (with the patient lying on her back). For each side, the patient grades how difficult it is to perform this movement, on a scale of 0 to 5. It is a simple test which is little used in France. Other tests using diagrams, mobilisation and provoked pain assess pelvic and spinal pain but their reliability needs to be studied.

Assessment of the abdomen

The woman's expectations of abdominal muscle reeducation should be known to establish a reeducation plan where her expectations with regard to morphological appearance remain reasonable in relation to other abdominal, perineal or spinal problems and the problems arising if abdominal muscles are reeducated too quickly. This assessment and discussion should be completed with:

- palpation to identify any diastasis or scarring, which should be recorded. Inter-examiner clinical measurement of severity of diastasis is not reproducible. There may be a difference between resting diastasis and diastasis during abdominal contraction;
- manual assessment of the strength of the abdominal muscles, i.e. the external oblique, internal oblique, transversus abdominis and rectus abdominis muscles, using published testing methods;
- a record of any lack of synergy between rectus abdominis and the transverse muscles causing protruding abdomen;
- an assessment of the ability to maintain normal anatomical spinal and pelvic posture by applying resistance using the upper or lower limbs, and during load bearing.

IV. POSTPARTUM REEDUCATION

There are three main stages in postpartum reeducation:

- (i) information, which is given during the first few days after delivery;
- (ii) prevention of immediate complications;
- (iii) treatment:
 - Methods are tailored to the problems recorded during the initial workup and postnatal consultation 6–8 weeks after delivery,
 - The normal anatomical balance between the perineum and the abdominal muscles is preserved (it should be possible to contract the perineum before contracting the abdomen).

Perineal and sphincter reeducation

If perineal and sphincter reeducation is required, it should begin after the postnatal checkup (6–8 weeks after delivery), a clinical examination, and provision of full information. The causes of the problem should be explained, with the help of simple anatomical diagrams, the methods used should be explained, the patient's informed consent should be obtained, and the patient should understand the importance of working on her own between reeducation sessions.

The aim of reeducation is to restore the tone of the perineum and remove any pain, so that the patient can tighten her perineal muscles during stress. Physical methods for analgesia have been assessed. Only cryotherapy seems to have any effect on perineal pain, but not all patients will accept it. The other analgesic methods have yet to be evaluated.

The most common reeducation techniques to treat perineal muscle weakness and incontinence are pelvic floor exercises, and biofeedback using a biofeedback device. In the case of recent nerve lesions, often caused by childbirth, it is advisable to avoid electrical stimulation as even a specific electrical stimulation current could delay nerve regeneration. Pelvic floor exercises improve perineal muscle strength and reduce stress urinary incontinence (grade C).

The results of postpartum reeducation are encouraging, but at present no specific protocol can be proposed among the variety available. A combination of techniques seems to be better than the use of a single technique

Reeducation of the pelvis and spine

Reeducation of the pelvis and spine is based on the guidelines from the French 1998 consensus conference "*Prise en charge kinésithérapique du lombalgique*" [Physiotherapy treatment for patients with low back pain]. Reeducation requires a global approach. Areas to be explored are pain, functional abilities, the patient's psychological and physical state, and her social and work situation. Postpartum reeducation should:

- investigate whether the pain is pelvic or spinal in origin, so that the most appropriate treatment can be given;
- avoid stressing ligaments or muscles which have been damaged during labour;
- tailor exercises to their effect on the perineal region and sphincters, and the abdominal muscles.

The results of pelvic and spinal reeducation during the postpartum have not been the subject of any controlled studies concerning impact on posture, trunk muscle strength, or spinal or pelvic pain. Studies are needed to decide which are the most effective techniques. Currently, only the techniques recommended in the French 1998 consensus conference "*Prise en charge kinésithérapique du lombalgique*" [Physiotherapy treatment for patients with low back pain] may be used, provided they meet the conditions described above.

Abdominal muscles

If the abdominal muscles need to be put under stress, the exercises used should not increase intraabdominal pressure. Although no relevant prospective studies were found, exercises which increase abdominal pressure increase the load on a number of perineal and abdominal structures. Pain from abdominal scars after a Caesarean section performed under general anaesthesia can be treated effectively during the immediate postoperative period by analgesic transcutaneous nerve stimulation (TENS) (grade C). This was not effective in women who had a Caesarean section under epidural anaesthesia.

Patients often have diastasis of the rectus abdominis, which is more marked in the subumbilical region. There were no studies of the natural history of diastasis. There is no evidence that electrical stimulation of the abdominal muscles during the postpartum is effective. The benefit of reeducation programmes for these muscles specifically requires study.

Other types of treatment

The oldest articles state that internal organ pain related to constipation should be treated by abdominal massage. The method has not been described in detail, nor evaluated during the postpartum. According to some professionals, constipation affects continence. This needs to be evaluated.

V. INDICATIONS FOR IMMEDIATE POSTPARTUM REEDUCATION

Information for patients in the maternity unit

Patients and healthcare professionals need to be informed and educated. From the first few days after delivery, the patient's knowledge of the repercussions of pregnancy and labour should be checked, and she should be informed about:

- the natural course of perineal, spinal, pelvic and abdominal problems;
- in relation to the perineum and sphincters: how to contract the perineum, and how to prevent incontinence;
- in relation to the pelvis and spine: how to prevent spinal pain, by postural advice related to her new activities as a mother (breastfeeding, carrying her baby and carrying baby equipment);
- in relation to the abdomen: awareness of the risks of starting to strengthen the muscles too early, and the role of the abdominal muscles in preventing spinal pain.

The provision of this information is an opportunity for the patient to discuss any questions and issues with a competent healthcare professional and is also a timely moment to urge her to attend the postnatal checkup when any indication for reeducation will be reviewed.

In the immediate postpartum period, reeducation involves treating any perineal, spinal, pelvic and abdominal pain.

Indications after the postnatal checkup

Postpartum reeducation sessions should not be prescribed routinely. Prescription should depend on the symptoms and signs described by the patient or identified by clinical examination during the postnatal checkup. This recommendation is not based on a professional consensus.

Postpartum reeducation may be indicated if there are residual problems or dysfunction in at least one of the three areas described below, or if there is a lack of coordination between tightening of the perineal muscles, abdominal contraction, and pelvic and spinal posture during general stress. The number of sessions prescribed (maximum 10-20 sessions) should take into account the severity of the clinical signs and symptoms and the number of areas needing treatment.

Perineum

- persistent perineal pain, with a specific indication if there is concomitant pain during intercourse;
- persistent perineal muscle weakness;
- persistent incontinence.

Spine and pelvis

- persistent spinal or pelvic pain;
- persistent spinal or low back / pelvis / femoral postural problems.

Abdomen

- persistent abdominal scarring pain after a Caesarean section;
- persistent abdominal muscle weakness.

If there is no objective or subjective clinical improvement after the first series of reeducation sessions, there may be no purpose in continuing reeducation. If the patient and therapist feel there is some improvement, but it is inadequate, treatment may be extended (10-15 sessions). If the patient feels that improvement is satisfactory or adequate (subjective criteria), or if the objective assessment criteria show a marked improvement or cure, reeducation may be discontinued.

VI. LOOKING AHEAD

The state of knowledge on postpartum reeducation varies depending on the area:

- *Perineal and sphincter disorders:* Treatment methods have been evaluated mostly in the short-term, using a variety of protocols.
- *Spinal problems:* There is only one prospective study on prevention/treatment during the postpartum, which reported no response.
- *Abdominal muscle reeducation:* There are no studies on the medium- or long-term natural history of diastasis of rectus abdominis or of abdominal muscle strength, nor on the efficacy of protocols for muscle strengthening.

In view of the number of deliveries in France, comparative prospective studies are essential so that guidelines can be produced on the short-, medium- and long-term efficacy of postpartum reeducation. Such studies would help better determine which patients could benefit from preventive and/or therapeutic reeducation.

ANNEX 1

Score	0	1	2	3	4	Scores
Urgency (holding-on time)	Absent	10 – 15 min or feeling of urgent need to void, without leakage	5 - 10 min	2 - 5 min	<2 min	Score for leakage related to
Leakage related to urgency	Absent	Less than once/ month	Several times/ month	Several times/ week	Several times/ day	urgency =
Daytime voiding frequency (interval between voids)	>2h	1½ - 2 hrs	1 hr	½ hr	< ½ hr	Score for frequency of voiding
Night-time voiding frequency (voids/ night)	0 or 1	2	3 - 4	5 - 6	> 6	=
Stress urinary incontinence	Absent	During violent stress (sport, running)	During medium stress (coughing, sneezing, lifting, laughing)	During weak stress (single cough, walking, squatting, sudden movement)	When changing position	Score for stress leakage =
Other type of incontinence	0	As post-void dribbling, - enuresis (> 1/month)	- emotional crisis - enuresis (1/week)	- enuresis (several times/ week)	- constant leakage dribbling - enuresis (1/ day)	Score for other types =
Dysuria, retention	0	initial dysuria, terminal dysuria	- abdominal contractions - broken stream	- manual pushing - prolonged voiding, sensation of postvoid residual urine	- catheteri- sation	Score for dysuria =

MHU scale: Measuring urinary symptoms

ANNEX 2

CONTILIFE[®] scale: Quality of Life Assessment Questionnaire concerning Urinary Incontinence

How to fill in the questionnaire:

The following questions are about your health over the last 4 weeks. Choose the answer which best describes what you feel or have felt over the last 4 weeks giving only one answer per line.

If certain activities do not apply (e.g. embarrassment when using public transport because you do not use public transport), put a tick in the "not applicable" box.

Please answer this questionnaire on your own, without help.

To answer, tick the $\bar{b}ox$ which applies to you.

	Not applicable					
Question a	\Box_0	\Box^1	\square^2	⊠3	□4	□5

If you make a mistake, cross out the wrong answer and circle the one which best applies. We thank you for your cooperation.

> Before completing the questionnaire, please give today's date:

DAILY ACTIVITIES

Over the last 4 weeks, how much have your urinary problems bothered you:

					(Tick the box of your choice, one per line			
		Not	Not at all	A little	Moderately	A lot	Extremely	
		Applicabl						
		e						
1.	When you were away from your home?		\Box^1	\Box^2	□3	□4	□5	
2.	When you were driving or being a passenger?	□ 0	□1		□3	□4	□5	
3.	When going up or down stairs?		\Box^1	\square^2	□3	4	□5	
4.	When shopping?		\Box^1	\square^2	□3	□4	□5	
5.	When queuing (bus stop, cinema, supermarket) ?			\square^2	□3	□4	□5	

² This scale was produced with the support of Sanofi-Synthélabo.

Over the last 4 weeks, because of your urinary problems:

(Tick the box of your choice)

	None	A few	Some	Many	Very many
6. Have you had to take frequent breaks during your work or daily activities?		□2	□3	□4	□5

Over the last 4 weeks, because of your urinary problems, how often:

				(Tick the bo	ox of your choice)
	Never	Rarely	Sometimes	Often	All the time
7. Have you woken up having wet yourself?	\Box^1	\square^2	□3	□4	□5

EFFORT

Over the last 4 weeks, how much have your urinary problems bothered you:

					(Tick the bo	x of your choice)
	Not appli- cable	Not at all	A little	Moderately	A lot	Extremely
8. When lifting or carrying heavy objects?			\Box^2	□3	□4	□5
9. When doing sport (running, dancing, keep-fit)?	D 0	□1	\square^2	□3	□4	□5
10. When blowing your nose, sneezing or coughing?			\square^2	□3	□4	□5
11. After a fit of laughter?		\Box^1	\square^2	□3	□4	□5

SELF IMAGE

Over the last 4 weeks, because of your urinary problems, how often:

				(Tick the bo	ox of your choice)
	Never	Rarely	Sometimes	Often	All the time
12. Have you felt less attractive?			□3	□4	□5
13. Were you afraid of giving off unwanted odours?			□3	\Box^4	□5
14. Were you afraid that other people might become aware of your problems?		□2	□3	□4	□5

15.	Were you afraid of leaving stains at other people's homes or at work?	□1	□2	□3	□4	□5
16.	Did you have to change your clothes?	\Box^1	\square^2	□3	□4	

Over the last 4 weeks, in spite of your urinary problems, how often:

				(Tick the bo	x of your choice)
	Never	Rarely	Sometimes	Often	All the time
17. Have you felt at ease with yourself?	\Box^1	\square^2		□4	

Over the last 4 weeks, because of your urinary problems:

					(Tick the box	of your choice)
	I never wear	Not at all	A little	Moderately	A lot	Extremely
18. Have you been <u>bothered</u> by having to wear pads?	pads □0		□2	□3	□4	□5

EMOTIONAL CONSEQUENCES

Over the last 4 weeks, because of your urinary problems, how often:

				(Tick t	he box of your	choice, one per line)
		Never	Rarely	Sometimes	Often	All the time
19.	Have you felt discouraged?	\Box^1	\Box^2	□3	□4	□5
20.	Have you lost patience?	\Box^1	\Box^2	□3	□4	□5
21.	Have you been worried that you might have a urinary "accident"?	\Box^1	\square^2	□3	□4	□5
22.	Have you felt that you are losing self-control?	□1	\square^2	□3	□4	□5
23.	Have you felt obsessed by your urinary problems?	□1	\square^2	□3	□4	□5
24.	Did you need to think about taking pads with you before going out?	□1		□3	□4	□5

SEXUALITY

Over the last 4 weeks, because of your urinary problems, how much:

					(Tick the box of	your choice	e, one per line)
		Not applicable	Not at all	A little	Moderately	A lot	Extremely
25.	Have you felt anxious at the thought of having sexual intercourse?			\square^2	□3	□4	□5
26.	Have you changed your sexual practices?		\Box^1	\square^2	□3	□4	
27.	Have you been afraid of having urine leaks during sexual intercourse?	D 0	□1	\square^2	□3	□4	□5

(Tick the box of your choice, one per line)

OVERALL QUALITY OF LIFE

28. Taking your urinary problems into account, how would you <u>currently</u> assess your quality of life?

			(Circle the answer of your choice)				
1	2	3	4	5			
Poor				Excellent			