



Think it Through

Chapter 1

an online resource
created to accompany

Pre- and Perinatal Massage Therapy:

*A Comprehensive Guide to Prenatal, Labor
and Postpartum Practice*
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Chapter 1

Below you'll find a list of questions that will test what you have absorbed from this chapter. Below each question are the possible answers (as you'll see, nearly all of these questions have multiple answers). All of the answers are things discussed within this chapter. Read each question and try to answer, in as much detail as you can, before you look further. Once you have written down your answers or said them out loud, you should compare your answer to the potential answers given below.

1. List five benefits of relaxation practice during pregnancy. Engaging in a relaxation practice while pregnant has the possibility to:
 - Counter the negative effects of prenatal stress
 - Increase oxytocin production and feelings of well-being
 - Enhance immunological functioning
 - Reduce fear and anxiety; decrease the risk of depression
 - Reduce maternal blood pressure, heart and respiratory rate
 - Increase internal awareness
 - Reduce labor time and complications
 - Fewer prenatal complications
 - Increase uterine blood supply to enhance fetal health
 - Improve parental adaptability to stress



2. Name three of the possible negative effects of stress during pregnancy.

- Prematurity
- Low birth weight
- Gestational hypertension
- Miscarriage
- Increased stress hormones, which can decrease blood supply to fetus
- Prolonged labors with more complications
- Fetal distress
- Postpartum complications

3. What effect do the following hormones – estrogen, progesterone, relaxin – have on the pregnant person's body?

- Estrogen
 - Increases blood volume
 - Increases uterine growth and blood flow
 - Improves metabolic efficiency
 - Contributes to nausea and vomiting and other concerns such as blood clots and edema
- Progesterone
 - Fosters gestation by quieting uterine contractibility and supporting the uterine lining
 - Increases blood volume and peripheral vasodilatation to accommodate that volume
 - Increases vascularity in the respiratory tract, leading to improved gas exchange with each breath



- Relaxes smooth muscle (which slow digestions for increased nutrient absorption, and regulates blood pressure)
 - Softens connective tissue
 - Contributes to nausea and vomiting and other discomforts, such as constipation, edema, varicose and spider veins, skin changes, sinus congestion
 - Relaxin
 - Softens connective tissue
4. How might the pregnant person experience the increased level of relaxin and progesterone in their body?
- Relaxin and progesterone causes laxity in ligaments, tendons and fascia, which can cause joint instability in and strain on all joints.
 - They may experience musculoskeletal pain, particularly in pelvic and other weight-bearing joints. The most frequently impacted joints are:
 - Sacroiliac joint
 - Lumbosacral joint
 - Symphysis pubis
 - Spinal joints
 - Hip joint
 - May experience structural and functional imbalances to alignment and body use, unsteadiness, and weakness.
5. Explain the causes of normal edema in the pregnant person's legs.
- Increased blood volume and increased interstitial fluid builds in the legs as the pregnancy progresses.
 - Progesterone relaxes the smooth muscle linings of blood vessels.
 - Vessels in the legs are particularly impacted due to gravity, pelvic



myofascial restriction, and the mechanical effects of the weighty uterus on pelvic vessels and tissues.

- Prolonged periods of standing and inactivity increase all of these effects.
- The combination of all of the above leads to normal edema.

6. How might massages during pregnancy affect the baby during the pregnancy and after? The effects of massage:

- May optimize blood flow to the uterus, placenta and fetus to better support healthy gestation.
- May improve maternal immunological and other physiological functioning, which then will support a healthier gestation.
- May reduce maternal prenatal complications, and thus contribute to healthier gestation.
- May decrease the likelihood of a premature birth and low birth weight and all of the possible difficulties that result.
- May improve Apgar scores after birth.
- May reduce newborn irritability, restlessness, crying and digestive problems.
- May improve the bond between mother and baby after birth.

7. List the uterine ligaments that are believed responsible for some of the pelvic and back pain experienced by most pregnant women.

- Broad ligaments
- Round ligaments
- Sacrouterine ligaments
- Anterior and posterior ligaments connecting bladder and rectum to



uterus

8. What joints are most likely to produce peripartum pelvic pain?

- Sacroiliac joint
- Lumbosacral joint
- Pubic symphysis

9. What are some of the possible positive benefits of having a massage therapist at a woman's labor?

- Shorter, less painful and less complicated labor
- More normalized pulse rate and blood pressure
- Less pharmacological and other medical interventions
- Fewer Cesarean births
- Feeling that emotional and physical needs are met
- When partner does some of the massage, greater satisfaction with their support
- Feeling more relaxed and less anxious
- Support for focusing and turning inward to access own resources
- Enhanced family adjustment postpartum
- Greater long-term satisfaction with labor experience
- Improved newborn adjustment, i.e. better Apgar scores

10. Describe some of the conclusions about the benefits of skin and vestibular stimulation that come from animal studies.

- Monkeys whose mothers were stressed during their pregnancies



had babies who were more anxious, clumsy, sick, shy, slower to learn and unable to focus on tasks.

- Pregnant rats restricted from normal prenatal licking behaviors had more labor complications, poorly developed placentas and mammary glands, more stillbirths and neonatal deaths, and poor mothering skills.
- Postsurgical rats that were massaged had less mortality compared to the control group.
- Pups of gentled, petted rats adjusted better as newborns, and had greater weight gain, more developed immune systems, and better nervous system development; they were smarter and better adjusted socially, and made better mothers when they matured.
- Summary of benefits: Skin stimulation stimulates the brain, creating positive effects in all body systems of both the mother and the baby. Touch promotes the production of hormones that improve outcomes and produce appropriate mothering responses.