

Chapter 9 Pregnancy and Infant Massage

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Introduction

- A pregnant woman's body undergoes tremendous changes:
 - Uterus expands to 20 times its previous size
 - Breasts more than double in size
 - Pelvis widens and ligaments slacken
 - Blood volume increases 50%
 - Breathing rate increases to take in 20% more oxygen

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First Trimester (14 weeks from the First Day of Last Period)

- Baby
 - 3-inch-long embryo with arms, legs, ears
 - Heartbeat can be heard at day 26
- Mother
 - Uterus grows
 - Hormone relaxin affects joints
 - Many experience nausea and headaches
 - Blood volume, heart rate, metabolism increase

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Second Trimester (14 to 18 Weeks)

- Baby
 - 11 inches long and 1 ½ pounds
 - Fingerprints, eyebrows, and eyelashes form
 - Sensitive to light
- Mother
 - Body changes to accommodate growing baby
 - Muscle cramping may occur, skin begins to stretch, breasts may be tender and swollen

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Third Trimester (28 to 40 Weeks)

- Baby
 - Grows from 14 to 16 inches and 2 ½ pounds to 20 inches and 5 to 9 pounds
 - Lungs develop, eyes track movement
 - Sleep patterns develop
- Mother
 - Shortness of breath, moving and walking more difficult
 - May develop various discomforts

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Third Trimester (28 to 40 Weeks)

- Labor begins after 40 weeks
- Three stages of labor
 - Dilation
 - Expulsion
 - Placental stage
- Lactation—secretion and ejection of milk
 - Colostrum—first milk
 - True milk—contains more lactose and fat than colostrum

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Benefits of Pregnancy Massage

- Reduces fatigue, headaches and muscular discomforts
- Keeps skin supple
- Assists muscles in preparation for labor and delivery
- Helps control blood pressure
- Relieves pain associated with pressure on the sciatic nerve
- Strengthens immune system

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Benefits of Pregnancy Massage

- Improves lymphatic and blood circulation
- Reduces insomnia, stress, anxiety, and depression
- Helps prepare the perineum for fetal delivery
- Reduces postpartum stress and depression
- Can benefit expectant mother's relationship with co-parent

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Discomforts of Pregnancy: Anemia

- Blood volume increases 30-50% causing decrease in RBCs
 - This creates anemia as blood is dilute
- Depending on cause, her physician may prescribe iron supplements
- Anemia contributes to fatigue

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Backaches

- Usually felt at months 5–9
- Leaning back to compensate for a larger abdomen stresses SI joints and lumbar spine
- Ligaments that support the uterus may become overstretched
 - Broad ligaments may create sciatic-like pain
 - Round ligaments may cause pain on sides of lower abdomen

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Breast Tenderness

- Breasts become enlarged and may become tender by week 8
- Stretch marks may appear
- Areola may become darker as pigment increases

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Charley Horse (Leg Cramps)

- Most leg cramps are from extra body weight and a large uterus compressing blood vessels
- OB may prescribe a multimineral supplement
- More noticeable at night

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Edema

- Fluid volume increases 40% in 3rd trimester, which often causes edema
- Legs and feet most affected: heavy uterus compresses vessels in lower extremity
- More prevalent at the end of the day
- Worse during the summer months
- Temporary carpal tunnel syndrome may develop as edema compresses the contents of the tunnel

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Elimination Problems

- Frequent urination becomes an issue as the growing uterus presses on the bladder below
- Progesterone decreases intestinal motility, causing constipation
 - Constipation is a common complaint if she is taking iron supplements
- Straining and pressure on the pelvic floor often results in hemorrhoids

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Fatigue

- Pregnancy demands a lot of energy
- Resting is compromised by frequent urination and leg cramps
 - These complaints are more common at night
- Fatigue is more a problem in 1st and 3rd trimester
 - Most pregnant women experience increased energy in 2nd trimester

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Gastrointestinal Complaints

- Stomach acids can move into the esophagus as
 - Progesterone relaxes the valve between the esophagus and the stomach
 - A growing uterus pushes abdominal contents upward
- Progesterone also slows digestion
- Intestinal gas may be experienced in 3rd trimester

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Headaches

- Causes include:
 - Pregnancy hormones
 - Postural changes (compensatory patterns)
 - Sinus congestion
 - Stress
 - Dehydration
 - Increased neck and shoulder tension
 - Discontinuing caffeine intake

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Nausea (Morning Sickness)

- 75% have nausea and vomiting in 1st trimester
- Can begin 10 days after fertilization and normally stops by end of 3rd month
- If excessive, may cause dehydration
- Causes include:
 - Elevated levels of human chorionic gonadotrophin or adrenocortical hormone
 - Altered carbohydrate metabolism

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Respiratory Conditions

- 30% of pregnant women have congestion
- Usually begins in 3rd month and can last until baby is born
- High levels of estrogen and progesterone increase blood flow to nasal mucosa, causing swelling and increased mucous production
- Pregnancy can create sensitivities to allergens or may worsen current allergies

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Stretch marks

- Caused by stretching skin and weight gain
- Half of pregnant women get stretch marks
- Appear on abdomen, buttocks, thighs, hips, or breasts
- First appear as pink, reddish brown, or very dark brown streaks, depending on skin color
- Later fade but do not totally disappear

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Vascular Problems

- Common causes include:
 - Enlarging uterus pressing on large abdominal blood vessels, which increases pressure in leg blood vessels
 - Increased blood volume, which burdens venous system
 - Progesterone relaxes smooth muscles and dilates peripheral blood vessels, contributing to varicosities

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Intake Process

- Find out how far along client is in pregnancy
- Don't schedule massage before week 12
- Obtain a statement from client's physician indicating knowledge of her receiving massage

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Intake Process

- Goal is to rule out any high-risk factors and conditions and guide therapist in preparing appropriate plan of care
- Conduct premessage interview each visit to ensure that conditions have not changed

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Contraindications and High-Risk Factors

- Concerns of miscarriage
 - Most embryonic development takes place in first trimester
 - Massage is best postponed until second trimester (fourth month)
- Minor pregnancy related ailments most common during first trimester

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Contraindications and High-Risk Factors

- High-risk pregnancy
 - Avoid massage if client's pregnancy is considered high risk
 - Factors indicating high-risk pregnancy:
 - Abnormalities or infections of the urogenital tract
 - Complications caused by pregnancy (e.g., gestational diabetes or preeclampsia)
 - History of miscarriage
 - History of preterm labor of delivery

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Contraindications and High-Risk Factors

- Hypertension
- Maternal age (younger than 15 and older than 35)
- More than 5 previous pregnancies
- Prepregnant weight is less than 100 pounds, or the client is obese
- Twins, triplets, or higher order multiples
- Vaginal bleeding or discharge
- Prenatal tests indicate fetal abnormalities
- Client has a chronic illness

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Contraindications and High-Risk Factors

- Avoid massage in the following situations:
 - Physician disapproves of massage during pregnancy
 - Severe, persistent, or unexplained pain is present
 - Nausea, vomiting, or diarrhea occurs
 - Back pain accompanied by bleeding or other discharge, abdominal cramping, or persistent uterine contraction

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Contraindications and High-Risk Factors

- Massaging legs is contraindicated if client:
 - Has poor circulation in legs
 - Is inactive
 - Is on physician-directed bed rest
 - Has severe or pitting edema

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Treatment Guidelines for Pregnancy Massage

- Duration and frequency
 - From 10 minutes to 1 hour
 - Once a week during second trimester, twice a week or more during third trimester
- Lower table height if needed

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Treatment Guidelines for Pregnancy Massage

- Use sheet for adequate coverage and secure with bath-size towel if needed



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Treatment Guidelines for Pregnancy Massage

- May be necessary to increase table width or perform massage on the floor
- Avoid prone position
- If client experiences pain while positioning herself, help her lie down until pain subsides, then ask her to try again, but to move more slowly
 - This type of pain is usually related to stressing of uterine ligaments

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Treatment Guidelines for Pregnancy Massage

- Avoid using the following:
 - Connective tissue and myofascial release techniques
 - Heating blankets and hot packs
 - Techniques that require pulling on the lower extremities
 - Direct and sustained pressure between anklebone and heel
 - Scented lotions and all aromatherapy

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Treatment Guidelines for Pregnancy Massage

- Avoid deep abdominal massage
- Massaging the medial thigh
 - This area has increased risk for blood clots as massage can loosen clots
 - Use only gentle pressure
 - Restrict techniques to an open, flat hand

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Comfort Issues

- Suggestions to increase client comfort
 - Make sure room is well ventilated
 - Suggest that client use restroom before and perhaps during massage
 - Avoid water sounds in music
 - Offer water before, during, and after massage
 - Be responsive to client's mood, both in conversation and body language
 - Have tissues handy in case client is emotional

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Pregnant Client Positioning

- Safe positions:
 - Supine: left tilt—use cushion placed under her right flank to tilt lower abdomen to the left
 - Supine: semireclining—support head, shoulders, and back at 45-degree angle
 - Side lying
 - Seated

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Massage Postpartum

- Can help mother by reducing tension and soreness as body returns to prepregnant state
- Normal vaginal births
 - No restrictions for prone and supine positions
 - Teach mother to massage her own abdomen

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Massage Postpartum

- C-section
 - Get written permission from client's physician
 - Use side-lying and supine positions for up to 8 weeks postsurgery
 - If abdominal mesh was implanted, avoid abdomen for 3 months and any deep abdominal work indefinitely

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Massage Postpartum

- Nursing mothers
 - Offer client water before and after massage to help her increase fluid intake
 - Side-lying position may be more comfortable

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Introduction to Infant Massage

- Natural transition from being massaged in utero to being massaged in the outside world
- Provides opportunity for father's early involvement in nurturing the baby

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Benefits for Infants

- Helps foster parent-infant bonding
- Relieves discomfort from teething, congestion, gas, and colic
- Promotes digestion
- Stimulates the nervous system and enhances neurological development
- Increases blood flow
- Slows and deepens respiration rate

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Benefits for Infants

- Improves muscle tone by activating sensory and motor neurons
- Encourages midline orientation and sensory awareness after tactile stimulation
- Increases vocalization
- Promotes deeper and longer sleep

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Benefits for Parents

- Helps parents acquire self-confidence and self-esteem in parenting roles
- Enhances and reinforces parental skills and validates parental role
- Helps ease stress of working parent by reinstating connection with infant
- Offers parents time to relax by providing focused time and attention with infant

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Benefits for Parents

- Increases parent's ability to relax infant in times of stress
- Helps release the pituitary hormone prolactin in parents
- Enhances communication between parent and infant
- Provides time for intimacy between father and infant
- Helps parents learn to read infant behavior

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Importance of Bonding

- Bonding—reciprocal relationship that goes from caregiver to infant and infant to caregiver
- Elements that promote bonding
 - Skin-to-skin contact
 - Odor or scent
 - High pitched voice
 - Prolonged eye contact
 - Warmth
 - Reestablishment of biorhythmic activity

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How Infant Massage Differs from Adult Massage

- Stressed infants don't benefit from massage as adults do
- Infant massage is a nurturing two-way relationship
- Not treated as an appointment with a set time duration
 - Timeless dimension of hanging out and being attentive
 - Often a shorter duration than adult massage

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Getting Started

- Informally interview parent to learn goals for the session
- Find out what infant likes and dislikes
- Massage position depends on infant's age and stage of development
- Therapist should wash hands before teaching



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Infant Behavior as a Guide

- Use the infant's behavior to determine the best time for a massage
- Be attentive to any shifts in behavior

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Infant Behavior as a Guide

- Infant behavior states
 - Deep sleep
 - Light sleep
 - Drowsiness
 - Quiet alert
 - Active alert
 - Crying
- Quiet alert state is best for massage

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Responding to Crying

- Respect a parent's intuition with his or her baby
- Encourage parents to try to recognize the different types of cries
- Teaching will vary depending on the type of cry

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Typical Strokes for Massaging Babies

- Touch-holds—area of the body is held to let the baby know you are starting (or ending) on that part
- Swedish milking—full palm massage with long fluid strokes toward the heart
- Thumb-over-thumb—rhythmic stroking with thumb-over-thumb in the motion of windshield wipers
- Thumb spreading—thumbs together, spread laterally to the sides

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Infant Cues

- Recognizing infant behavior cues is a key to individualizing massage
- 108 known infant behavioral cues exist
- Engagement cues indicate the baby is ready to interact
- Disengagement cues indicate the baby wants a break

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Infant Cues

- Engagement cues include
 - Smiling
 - Cooing
 - Bright eyes
 - Making eye contact
 - Reaching toward parent

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Infant Cues

- Disengagement cues include
 - Crying
 - Gaze aversion
 - Arching
 - Splayed fingers and toes
 - Leg kicking

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Using a Doll to Teach Infant Massage

- Doll should have:
 - Flexible limbs
 - Weighted body that can be positioned to match positions of a baby
- Use doll to demonstrate positioning, massage strokes, and interpersonal dynamics



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Using a Doll to Teach Infant Massage

- Guidelines for parents:
 - Look to the baby, not the instructor, for confirmation
 - Ask baby's permission before beginning a massage as a sign of respect
 - Discover what works for the baby
- Less is more: infant massage is about sharing a moment, not about volume of strokes

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Organizing Your Environment

- Warmth
 - Temperature should be 5° to 10° degrees warmer than usual
 - Keep areas not being massaged covered if baby gets chilled
- Lighting
 - Natural or low light is best

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Organizing Your Environment

- Location
 - At home the massage can be given on the floor, bed, couch, recliner, or wherever the parent spends time with the baby
- Noise
 - Try to eliminate distractions such as ringing telephones, TV, or radio noise

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Positioning

- Parents need back support
- Baby's position will vary from baby to baby
 - Will be adjusted to fit developmental age

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Lubricant and Music

- Preferred types of oil
 - Grape seed
 - Safflower
 - Olive
- Avoid mineral oil and scented oil
- Soft background music promotes relaxation
- Parent can sing a lullaby, talk, or hum

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Who Massages the Baby?

- Both mother and father should learn
- Grandparents (if parents approve)
- Other family members (if parents approve)

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Adapting to the Growing Child

- Crawlers
 - Parents follow the baby's lead
- Toddlers
 - More mobile than infants
 - Play, sing, or accompany strokes with rhymes to engage
- Never too late for parents to learn to massage their children

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Becoming an Infant Massage Instructor

- Much can be learned from books
- 4-day continuing education certificate training available
- Find the best instructor trainer
 - Ask how long teacher has been training instructors
 - Find instructor who consistently teaches families

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Precautions and Contraindications

- Jaundice
- Reflux
 - Wait at least 30 minutes after feeding
 - Elevate baby 45 to 90 degrees during massage
 - Hold baby upright for 10 to 15 minutes after massage
- Nausea, vomiting, and diarrhea
- Gas or colic (if relief is not apparent soon)

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Precautions and Contraindications

- Special precautions for at-risk or special needs babies
 - Continuing education needed when dealing with babies who are premature, have special needs, or have medical or neuromotor conditions
 - These conditions must be taken into account when designing a massage plan

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Summary

- Pregnancy massage and infant massage require a deep connection and constant learning
- Each situation will teach the therapist something new
- Massage can change the lives of parents, babies, therapists, and instructors

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