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

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

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

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

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
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

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

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

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

Breast Tenderness

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

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
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

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

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

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

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

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
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

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

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

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

Intake Process

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

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
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

• 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

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

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

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

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

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

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

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

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

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
 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

 Massage Postpartum

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

 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

 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

 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

 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
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

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

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

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

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

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
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

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

Infant Cues

- Recognizing infant behavior cues is 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

Infant Cues

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

Infant Cues

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

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
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

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

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

Positioning
• Parents need back support
• Baby’s position will vary from baby to baby
  – Will be adjusted to fit developmental age

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

Who Massages the Baby?
• Both mother and father should learn
• Grandparents (if parents approve)
• Other family members (if parents approve)
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

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

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)

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

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