

Infant Massage

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WholeKids
PEDIATRICS & YOGA

Touch in the Brain

- **Touch** is a sense that is located in the *primary sensory cortex*.
- Cortex is located in the parietal areas of the brain.
- Impulses from the fingers, hands and face make up the bulk of this cortex.
- Touch occupies such a large region of the brain that this sensory input is vital to our development and our survival.

Benefits of Infant Massage

- Massage has been shown to be beneficial to:
 - parent-child bonding
 - premature infants
 - full term infants
 - young children



Premature Infants



- Improved weight gain (5g/d)
- Hospital discharge an average of 6 days sooner than those infants who were not massaged.
- Not clear that these effects were directly related to massage therapy.

Healthy Infants



- Less crying and irritability
- Cortisol levels found to be lower. Cortisol is the stress hormone.
- Improved sleep perhaps due to the increase in melatonin levels. Melatonin is a hormone that helps to regulate our sleep cycles.
- Improved parent-child bonding



Preschool Children



- French preschoolers were compared to US preschoolers.
- French preschoolers were touched more by their mothers and by each other compared to US preschool children
- US preschoolers were found to be more aggressive.

Preschool Children



- 1998 study in Early Childhood Development and Care showed one 15 minute massage session improved cognitive function in preschool children working with blocks
- More research is needed to verify these effects on behavior and learning

Children with Emotional Disturbances



- 1992 study in the Journal of the American Academy of Child and Adolescent Psychiatry showed a positive effect of massage.
- Five 30 minute massage sessions resulted in improved quantity and quality of sleep.
- There were lower levels of depression, anxiety and stress.
- Finally, those children who were receiving other therapy for emotional disturbances had improved clinical progress.

Infants with Special Needs



- Special Needs
 - Prematurity
 - Prenatal drug exposure: cocaine, alcohol
 - Medical conditions e.g. heart defects, seizures

Infants with special needs may benefit from calming touch, nesting/swaddling, gentle touch, decreased massage time, more skin to skin contact.

Behavioral States		
Behavioral State	Description	Massage Consideration
Deep Sleep	Eyes closed tightly; little or no movement; abdominal breathing; intense or disturbing stimuli will arouse baby	Not recommended during this state.
Light Sleep	Eyes closed; Body may twitch and stretch. Facial movements may be present. Child will respond to stimuli but slowly	Massage in this state may put baby back into deep sleep

Behavioral States		
Behavioral State	Description	Massage Consideration
Drowsy	Eyes open & shut; facial expression may be slow to respond; some stretching	Massage can be done slowly in this state; will likely induce deeper sleep
Quiet Alert <i>Newborns only spend 10% of time in quiet alert stage; increases with age</i>	Body is still and face is relaxed; eyes are open and focused. Baby is attentive to environment and focused on stimuli	Best state for massage.

Behavioral States		
Behavior State	Description	Massage Consideration
Active Alert	Limb movements are active and jerky; may not be able to focus; can get over stimulated	Massage may need to stop; gentle touch to refocus baby
Crying	Active and tensed limbs often; may turn away from stimulus; grimacing;	Massage may help but good time to soothe baby and try to refocus

Infant Engagement Cues	
Easy to Recognize	Not as easily recognizable
Still body	Eyes are open & "bright"
Smooth movement of limbs	Sucking noises
Looking at parent's face	Whole face is bright
Raising head up	
Reaching out	
Turning eyes/head toward parent	
Smiling	
Feeding sounds	
Cooing/babbling	
Head is in line with body (midline)	

Infant Disengagement Cues	
Easy to Recognize	Not as easily recognized
Turning head away	Turning eyes away
Crying/Fussy	Rapid breathing
Coughing/choking	Yawning
Arching back	Wrinkled forehead/frowning
Falling asleep	Dull look to eyes, unfocused eyes
Squirming/kicking	Hand to mouth if hungry or frantic – otherwise this is a soothing mechanism
Pulling away	Hiccups
Pale/red/mottled skin – sign of stress	

Massage Oil

- Oil to reduce friction. Also warms the body.
- Natural oils such as olive, canola or safflower are recommended.
- Fruit/seed oil such as grape seed oil is a good choice as well.

Massage Oil


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- Mineral oil is derived from petroleum
- Not absorbed by skin and leaves a layer on the skin
- Lotions are cooling and thus not recommended
- Lotions can also have scents added
 - Irritating to child's skin
 - Competes with parent's scent – babies use smell to identify and bond with their parents/caregivers

Massage Strokes: Legs and Arms

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graph TD; A[Resting Hands] --> B[Cuddle & Glide]; B --> C[Thumb over Thumb]; C --> D[Wiggle/waggle]; D --> E[Ankle/wrist rotation]; E --> F[Press my soles/hands]; F --> G[Integration/Effleurage];
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Abdominal Massage

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graph TD; A[Resting hands] --> B[Paddlewheel]; B --> C[Clock point]; C --> D[Integration/Effleurage]; D --> A;
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