SUPPORTING ORAL FEEDING IN PRETERM & SICK INFANTS

A speech pathologist’s perspective

Katherine Ong
- Royal Women’s Hospital, Melbourne
- Royal Children’s Hospital, Melbourne
- Melbourne Paediatric Specialists
Outline

- General framework and philosophy about feeding
- Feeding outcomes
- Development of feeding
- Components of feeding
- What parents can do
- Referral for additional support
- Resources
High Risk Infants

- Extremely preterm infant - <28 wks GA or <1000g BW
- Preterm infants with chronic lung disease
- Preterm infant with brain injury
- Preterm infants with many infections
- Term infant with significant brain injury
- Infants with complex medical or surgical conditions
- Risk factors are additive
The speech pathologist’s perspective

- Infant development
- Principles of developmental care
- Anatomy and neurology of the head & neck
- Normal and disordered feeding & swallowing (dysphagia)
- Aspiration (entry of food or fluid into the airway)
- Communication
- Feeding as part of a social relationship
Why is feeding important?

- Instinctive drive to nurture and to feed our baby
- It’s one of the things that parents can do for their baby while they are in the nursery
- Important for growth and nutrition
- Babies feed multiple times each day – so feeding can be a real source of stress if things aren’t going well
- Feeding is usually the last milestone to be achieved before a baby can go home
Advantages of Breast Feeding

- Baby-led – infant has to be an active participant, therefore neuro-protective and harder to force-feed
- Improved physiologic parameters compared with bottle feeding
- More able to control the flow rate
- Consistent feeder therefore easier to learn
- Promotes the mother-child relationship
Feeding Outcomes

- Delayed attainment of feeding skills
- Prevalence of later feeding problems
- Sensory-based feeding difficulties
- Behavioural & interactional feeding issues – prolonged mealtimes, poor appetite, avoidant and “challenging” behaviours
- Parents resorting to use of coaxing, rewards and distraction
- Parents feeling stressed & frustrated
Successful Feeding

- Safety
- Efficiency
- Enjoyment

Skill
Development of feeding

- Jaw opening 10–11 weeks
- Rhythmical open-close of mouth 12 weeks
- Sucking on fingers 15 weeks
- Rhythmic non nutritive suck bursts 28-33 weeks
- Starting to coordinate sucking & swallowing 28 weeks
- Better coordination sucking & swallowing 32-34 weeks
- Suck-swallow-breathe coordination 35-37 weeks
Coordination of suck-swallow-breathe

- Matures with gestational age
- Generally not established prior to 35-37 weeks
- Immature pattern characterised by periods of apnoea and breathing occurring in pauses
- Mature pattern, ratio of 1:1:1
Is your baby ready to feed?

Pre-requisites for feeding

- Physiologic stability
- Motor stability
- State stability
Why is feeding difficult?

- Difficulties with neuro-behaviour will affect state regulation, motor organisation and physiologic stability
- Delayed initiation & progress
- Fewer opportunities for positive feeding experiences
- Problem with any single component – sucking, swallowing and breathing – or combination eg. Can suck on dummy but not feed
- Usually difficulty with suck-swallow-breathe coordination – particularly if milk flow is too fast (bottle or breast)
- Feeds well at start but poor endurance
Principles of developmental care

Educate parents to observe and interpret their baby’s behaviour and modify their caregiving to:

- Enhance the infant’s abilities
- Minimise infant stress responses
- Support early development
- Promote parent infant relationship
Cue-based feeding

- Initiation of feeding
- Prior to each individual feed - readiness cues
- Moment to moment during a feed
  - stress cues
  - engagement & disengagement cues
General principles

- Well-supported positioning of trunk and head, with hands to the midline
- Swaddling to assist motoric organisation
- If bottle feeding, consider elevated side-lying
- Practise non nutritive sucking (on dummy or your finger) to facilitate quiet alert state
- Always take baby out of bed to feed
- Watch for stress signs and be prepared to abandon the feed
Where to start

- Get to know your baby and how they communicate
- Look at your baby’s skills and development (in feeding & other areas), not just their age
- Think about feeding from your baby’s perspective
- Focus on the quality *not* the quantity
- A longer-term view
What can parents do?

For the baby who is not yet ready for sucking feeds

- Skin to skin
- Hold your baby during tube feeds
- NNS (non nutritive suck) practice on dummy, your finger or empty breast during tube feeds
- Look for “search” behaviours and other feeding readiness cues
- Tastes of milk – at breast, from your finger, swab, syringe
What can parents do (2)

For the baby who has just started sucking feeds

- Consider state – quiet alert is optimal
- Mouthing hands and sucking behaviours
- Ensure baby is calm.
- Swaddling and non nutritive sucking
- External pacing
- Stop if stress cues
- Focus on the experience rather than volume
What can parents do (3)

For the baby who is consolidating their feeding skills

- Continue to watch for feeding readiness cues – every feed is different
- Feeding Practice
  - Continue to monitor baby’s stress and disengagement cues. A short, enjoyable feed (with less volume taken) is still more valuable than a long stressful feed
  - If breast feeding, don’t be tempted to introduce a bottle too early
  - Don’t be tempted to remove the nasogastric tube too soon
Going home

- Settling into family life
- Still learning to feed – so feeding is easily disrupted
- Start of feeding refusal ??
- Still important to *listen* to your baby
Introducing solids

- Between 3 months corrected and 7 months actual age
- Signs of readiness
- Iron-enriched first foods
- Spoon feeding or baby-led weaning
- Supportive positioning and eye contact
- Take it slowly!
- Consider taste, texture, consistency and temperature of food
- Gagging is a normal part of learning to eat
Next steps

• Optimism
• Each new developmental stage provides a new opportunity
• Engage child’s desire for autonomy and drive for independence
• Continue to focus on ENJOYMENT – of the food and the interaction
• Preserve your relationship – listening, respect & trust
• No force feeding
Resources

- Ellyn Satter’s website: www.ellynsatter.org *Division of Responsibility*
- Suzanne Evans Morris [www.new-vis.com](http://www.new-vis.com) *Feed your Mind – Information papers*
- Raising children network
- [www.agesandstages.net](http://www.agesandstages.net)
When to refer to a speech pathologist

- Persistent concerns about choking, coughing and gagging while feeding
- Struggling to accept puree by 10 months (corrected age)
- Unable to manage any table foods ("family foods") by 12 months
- Stressful and/or prolonged feeds/mealtimes
- Feeding refusal
- Avoidance or rejection of all foods in a specific texture/food group
How to find a speech pathologist

- Community health centres
- Early childhood intervention services
- Public hospitals
- Private practice
Conclusions

- Learning to feed is a developmental task
- Building the foundations for your child’s feeding future
- *Quality* not just quantity
- Feeding your baby is part of your relationship
- The child’s perspective
Thank You!!