Core Knowledge in Physical, Mental and Oral Health and Nutrition for Young Children from Birth through 5 Years

A Guide for Families and Practitioners in Early Care and Education Fields

The Role of Health in Child Development

Children learn best when they are healthy, safe, and free of hunger. So what does it mean to be healthy? Health is a very broad topic, and is influenced by many factors including nutrition, sleeping habits, physical activity, oral health, vision, hearing, and social-emotional wellbeing.

Balanced nutrition, adequate sleep, and physical activity all help children grow and set the stage for healthy habits and life-long learning. Well-child visits with a consistent doctor (or other healthcare provider) are important for ensuring that a child's physical, cognitive and social development, immunizations, oral health, vision, and hearing are on track. Regular visits to the dentist help ensure children's teeth and gums are developing in healthy ways. Like all areas of child development, health and wellbeing must be considered within the context of each individual child.

Professionals who work with young children and their families should understand and value the role of health in child development. They should also know how to talk to parents and caregivers to promote children's health and wellbeing.

Purpose of this Document

This booklet was designed as a resource for professionals and families regarding children's health needs, specifically addressing physical health, mental health, oral health, and nutrition. The core knowledge documents contained in this booklet can be used collectively or individually, and are available on the Early Childhood Iowa (ECI) website (www.earlychildhoodiowa.org). Working together, we can further the ECI vision that "Every child, beginning at birth, will be healthy and successful."

Authors of this Document

The core knowledge documents included in this booklet were developed and reviewed by members of the ECI Health, Mental Health, and Nutrition Professional Development Leadership Team. The authors of this document are listed below:

Rhonda Rairden	Iowa Department of Public Health
Heidi Ball	Drake University Head Start
Marcus Johnson-Miller	Iowa Department of Public Health
Sally Nadolsky	Iowa Department of Human Services
Tracy Rodgers	Iowa Department of Public Health
Shanell Wagler	Iowa Department of Management
Kimberly Stanek	Iowa Department of Public Health
Jill Kluesner	The Division of Child and Community Health
Danielle Oswald-Thole	Child and Family Policy Center
James Olson	Iowa Department of Public Health
Kere Hughes-Belding	Iowa State University
Melissa Schnurr	Iowa Department of Education
Tammy Bormann	Iowa Association for the Education of Young Children

This committee is a part of the ECI Professional Development Framework that was created in 2009. The framework is focused on developing an early childhood professional development system of integrated supports for early childhood professionals, empowering them to improve the quality of services provided to young children and their families.
The framework unites the early childhood sectors of early learning, family support, special needs/ early intervention, and health, mental health, and nutrition – and addresses the needs of children ages 0 to 5 and their families. The professional development framework provides a roadmap for ECI to create a comprehensive professional development system for practitioners; addressing professional standards, career pathways, articulation, leadership, evaluation, and financing for the system.

ECI is an alliance of stakeholders in early care, health, and education serving children birth through age five in Iowa. The initiative's purpose is to be a catalyst for the continued development of a comprehensive, integrated early care, health, and education system. Recognizing the critical importance of the early years, ECI seeks to work, at both the state and local levels, to improve the efficiency and effectiveness of services provided to young children and their families.

For more information on Early Childhood Iowa, visit www.earlychildhoodiowa.org.

5 Things You Should Know About Early Childhood Mental Health

1 Mental health plays an important role in everyone's wellbeing, even babies and young children.

Mental health refers to the way we think, feel, relate to others, handle stress, and make decisions. It also includes the way we see ourselves. Mental health problems can occur at any age, and can include conditions such as anxiety and depression. Often, mental health problems in children lead to challenges with behavior and attention. Young children process and respond to stressful situations differently than older children and adults. It is important for people who work with young children to keep this in mind.

2 Early relationships and experiences lay the foundation for mental health across the lifespan.

Research indicates that children who are raised in a loving and nurturing environment with attentive and consistent caregivers are more likely to experience a lifetime of healthy mental development than children who endure abuse and neglect. It is important to note that the mental health of a parent or caregiver can impact the mental health of a child. Although genetics undeniably play an important role in early brain development, experiences and environments can impact mental health in either a positive or negative way. We can promote children's mental health by fostering safe, stable and nurturing environments for babies and young children.

3 Frequent or prolonged exposure to chronic stress can negatively affect the developing brain.

When we experience stress, our bodies respond by releasing stress hormones. In large amounts, stress hormones can impact nerve cell growth. Children who are exposed to chronic stressors (such as physical or emotional abuse, domestic violence, substance abuse, caregiver depression or poverty) can actually experience a disruption in brain development which can impact learning, behavior, and health. The effects of chronic stress in early childhood can last a lifetime.

4 Protective factors may buffer the effects of chronic stress.

Even when bad things happen, children who have certain protective factors are more likely to be resilient or "bounce back" from adversity. These factors include:

- Caring relationships with adults
- Good physical health and development
- Positive relationships with peers
- Healthy self-esteem
- Good social skills
- Sense of control over some situations

5 Early identification and intervention is crucial.

Intervention is more likely to be successful when concerns are identified and addressed early. Developmental screening can detect problems early on, before the problem becomes overwhelming. Developmental screening can be completed by physicians, nurses, social workers, child care providers, or other professionals who work with young children. Screening can even be completed by a parent or other caregiver. It is important that parents know and understand the results of the screening, share the information with their child's primary care provider and other professional supports, and follow up on referrals to specialists when necessary. Early intervention should always occur within the context of relationships.

Iowa Association for Infant & Early Childhood Mental Health

For references and additional information, please visit www.promotementalhealthiowa.org

5 Things You Should Know About Early Childhood Mental Health

Warning Signs that MAY Indicate Emotional Distress

The following are indications that a young child MAY be experiencing emotional distress. Remember, these are only warning signs; these behaviors may be related to other health factors. If you suspect a child or family may be in need of assistance, talk with the child's pediatrician or a licensed mental health professional in your community.

Infant (birth-12 months):

- Unusually difficult to soothe or console
- Limited interest in things or people
- Consistent strong reactions to touch, sounds, or movement
- Always fearful or "on guard"
- Reacts strongly for no reason
- Evidence of abuse or neglect

Toddler:

- Displays very little emotion
- Unable to comfort or calm self
- Limited interest in things or people
- Does not turn to familiar adults for comfort and help
- Has inconsistent sleep patterns

Preschool Child:

- Consistently prefers to not play with others or with toys
- Goes with strangers easily
- Is hurtful to self, others or animals
- Limited use of words to express feelings

Parent-Related Risk Factors:

- Known mental illness
- Substance abuse
- Limited coping skills
- History of traumatic events
- Frequent moves or lack of friends and support

Resources

Iowa Association for Infant and Early Childhood Mental Health: www.promotementalhealthiowa.org
Kansas Association for Infant & Early Childhood Mental Health: www.kaimh.org/
Zero to Three: www.zerotothree.org/
Florida State University: www.cpeip.fsu.edu/index.cfm
Center on the Social and Emotional Foundations for Early Learning: csefel.vanderbilt.edu/index.html
Bright Futures: brightfutures.aap.org/index.html
Early Head Start National Resource Center: eclkc.ohs.acf.hhs.gov/hslc/tta-system/ehsnrc/center
Georgetown University: gucchd.georgetown.edu/64273.html
Centers for Disease Control and Prevention: www.cdc.gov/ace/index.htm

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Information contained in this document was developed and adapted from various sources, including the Florida State University Center for Prevention & Early Intervention Policy: What is Infant Mental Health by Joy Osofsky, PhD; Kansas Association for Infant and Early Childhood Mental Health; Zero to Three National Center for Infants, Toddlers and Families; Center on the Social and Emotional Foundations for Early Learning.

Iowa Association for Infant & Early
Childhood Mental Health

For references and additional information, please visit www.promotementalhealthiowa.org

5 Things You Should Know About Early Childhood Oral Health

1 Children's oral health is a critical component of their overall health.

Children need good oral health to chew food effectively which helps them to grow and thrive, speak properly, and to be free from pain in order to concentrate on learning new skills. If a child has untreated dental disease, it can lead to malnourishment, bacterial infections, and even surgery or hospitalization. Adults have a responsibility to help children maintain good oral health. Talk to your pediatrician and dentist to learn more.

2 Infants' desire to suck on something is natural.

Sucking on thumbs, fingers, or pacifiers is a natural reflex for babies and can help infants feel happy and more secure. Adults should encourage the use of a pacifier when needed, which is an easier habit to break than finger-sucking. Be sure that breastfeeding is well established before introducing a pacifier. Children should be weaned from pacifier and finger sucking by the age of 4.

3 Caregivers should be familiar with the approximate ages that infants and children get teeth.

An infant's first tooth erupts, on average, at around 6 months old. Lower front teeth usually erupt first. By 2 ½-3 years of age, most children have all 20 primary, or "baby", teeth. Primary molars, the back teeth, usually remain in the mouth until a child is 10-12 years old.

Permanent teeth begin erupting in the mouth at around 6 years old. The permanent molars are usually the first to erupt, behind the primary molars. Eruption of upper and lower front teeth will cause the front baby teeth to become loose and fall out.

4 Cavities can form as soon as children start getting their teeth.

Three things must be present for tooth decay to occur: a tooth, bacteria (plaque), and a carbohydrate (especially sugar). Bacteria in the mouth use carbohydrates to create an acid, which weakens tooth enamel and can create a hole, also known as a cavity, in a tooth. Cavities may first appear as chalky white spots on teeth near the gums or dark grooves in the chewing surfaces of back teeth. They may progress to dark spots or even loss of tooth structure.

The form and frequency of food and drink intake impacts the risk for tooth decay. Stickier food remains on teeth longer (form) and each time sugars and starchy carbohydrates are consumed, even fruit juice, acid remains in the mouth for at least 20 minutes (frequency). Children can get decay-causing bacteria from parents and caregivers. Adults should avoid saliva-sharing activities, such as using the same eating utensils, sharing a toothbrush with a child, or licking/sucking on a child's hands, pacifier, or bottle.

For references and additional information, please visit www.idph.state.ia.us/OHDS/OralHealth.aspx

5 Things You Should Know About Early Childhood Oral Health

5 Tooth decay can be prevented.

Protect teeth with fluoride. Keep teeth strong and resistant to the acid made during the tooth decay process by using fluoride which is found in toothpaste, water, and special treatments applied by a dental or medical provider. Caregivers should use a smear of fluoride toothpaste when brushing the teeth of infants and toddlers younger than age 2. Children ages 2 and older should use a pea-sized amount of fluoride toothpaste when brushing. All children should drink and use water containing fluoride.

Eliminate bacteria by brushing teeth at least twice a day. Regular toothbrushing is important to remove the bacteria that accumulate on teeth and create plaque. Wipe an infant's gums with a wet washcloth after feedings. After teeth erupt, begin brushing them twice a day with a small, soft-bristled toothbrush. Adults should help children brush their teeth until they are 7-8 years old. If a child has teeth touching each other, adults should also use dental floss between those teeth.

Food and drinks with starch or sugar should be limited to mealtimes. Children who eat foods and drinks with sugar and starch frequently and throughout the day are more likely to get cavities. Offering foods and drinks with sugar and starch only at mealtimes limits the amount of time that teeth may be exposed to harmful acids. Provide age appropriate healthy foods such as cheese, yogurt, fruits, and vegetables as snacks. Children should not go to bed with a bottle and should be weaned from the bottle by the age of 1. Use only water in a sippy cup that is used throughout the day; other beverages may be used in a cup at mealtime. Avoid all regular and diet soda pop and sugar-sweetened beverages because these are harmful to teeth.

Begin regular dental visits by a child's first birthday. Regular dental appointments are a way to identify dental problems early and help to keep a child's mouth healthy. Schedule the first dental visit before a child turns one year old. The dentist will inspect the child's teeth, lips, and tongue; assess the child's risk for cavities; and make recommendations about caring for the child's mouth and teeth. For assistance finding a dentist, contact an I-Smile coordinator. Contact information for coordinators is available at www.ismiledentalhome.iowa.gov.

Resources

All Topics, American Academy of Pediatric Dentistry
www.aapd.org/publications/brochures/

Tooth Decay, Iowa Department of Public Health
www.idph.state.ia.us/IDPHChannelsService/file.ashx?file=DAB48A19-162C-45C5-83DF-2516628F0AB8

Non-nutritive Sucking, Iowa Department of Public Health
www.idph.state.ia.us/IDPHChannelsService/file.ashx?file=5A92DB7A-B64B-4287-88B6-DD0748723D07

Fluoride, Iowa Department of Public Health
www.idph.state.ia.us/IDPHChannelsService/file.ashx?file=C63A5BB3-7BB6-4946-9158-B07317E2B319

Tooth Eruption and Teething, Iowa Department of Public Health
www.idph.state.ia.us/IDPHChannelsService/file.ashx?file=19911B1A-21BD-4493-A6A4-087AD2647882

Brushing and Regular Care of Teeth, Iowa Department of Public Health
www.idph.state.ia.us/IDPHChannelsService/file.ashx?file=96ACBC7A-175E-4E71-A9E9-135C877E8ECF

5 Things You Should Know about Early Childhood Nutrition

1 Proper nutrition is important for children's health, growth, learning, and development.

Children need nutritious foods to sustain the growth, activity, and functioning of their bodies, including their brains. Children also learn best when they are healthy, safe, and free of hunger. A variety of nutritious and age appropriate foods should be offered during meal and snack times. Children are dependent on their caregivers to offer healthy foods, provide opportunities for physical activity, and to model healthy behaviors.

2 Breastfeeding is the recommended form of feeding infants.

The American Academy of Pediatrics recommends breastfeeding for a year and for as long as is mutually desired by the mother and baby after the first year. Breastfeeding provides many benefits for mom and baby. Breastfeeding is a great way for mom and baby to bond. Benefits also include, among many others, reducing a baby's risk of obesity, ear infections, Diabetes, Sudden Infant Death Syndrome (SIDS) and reducing a mom's risk for breast cancer, ovarian cancer, and Type 2 Diabetes. A health care professional, such as an International Board Certified Lactation Consultant (IBCLC), should be contacted right away for any breastfeeding questions or concerns.

3 Typical eating habits vary from child to child.

Some days children may eat more than others or may not want to eat at all. Sometimes children may only want to eat certain foods. This is all normal. It is an adult's responsibility to decide what foods to offer and when and where to eat. Children should decide how much to eat or whether to eat at all. Adults should sit with children during meal/snack times and model healthy eating habits.

4 Families should eat together as much as possible without the interference of technology and media.

Children learn by listening and watching. Eating together improves family communication. Children who eat family meals often have higher quality diets than children who don't. Some research suggests that eating family meals can decrease a child's risk of obesity and eating disorders. Infants can certainly be a part of family meals too! Even if they are not ready to eat solid foods, they can still sit on an adult's lap and be a part of the family. Family meals are also recommended within early care and education settings to allow children and adults to sit together for meals and snacks allowing valuable interactions to occur.

5 Healthy habits start young.

Children with healthy eating and physical activity habits are more likely to grow to be adults with healthy habits. Start children off right by providing healthy foods, encouraging healthy eating habits, and providing opportunities for physical activity that can help them develop healthy habits that will last a lifetime.

For references and additional information, please visit www.idph.state.ia.us/wic/Resources.aspx?SubPg=Education

5 Things You Should Know about Early Childhood Nutrition

Resources

Nutrition & Healthy Eating Habits

Academy of Nutrition and Dietetics: www.eatright.org
American Academy of Pediatrics: www.aap.org
Centers for Disease Control and Prevention: www.cdc.gov
Eat and Play the 5-2-1 way: www.eatplay521.com/
Ellyn Satter Institute: www.ellynsatterinstitute.org/
Healthy children.org (American Academy of Pediatrics): www.healthychildren.org
Iowa State University Extension and Outreach: www.extension.iastate.edu/humansciences/healthy-living-and-eating-families
Kids eat right (Academy of Nutrition and Dietetics & Academy of Nutrition and Dietetics Foundation): www.eatright.org/kids
Let's Move!: www.letsmove.gov
Let's Move! Child Care: www.healthykidshealthyfuture.org/welcome.html
MyPlate (United States Department of Agriculture (USDA): www.choosemyplate.gov
NAPSACC (Nutrition and Physical Activity Self Assessment for Child Care: gonapsacc.org/
U.S. Department of Health and Human Services: www.healthfinder.gov, www.health.gov

Breastfeeding

Academy of Nutrition and Dietetics: www.eatright.org
American Academy of Pediatrics: www.aap.org
Centers for Disease Control and Prevention: www.cdc.gov
Healthy children.org (American Academy of Pediatrics): www.healthychildren.org
Kids eat right (Academy of Nutrition and Dietetics & Academy of Nutrition and Dietetics Foundation): www.eatright.org/kids
Let's Move! Child Care: www.healthykidshealthyfuture.org/welcome.html
MyPlate (United States Department of Agriculture (USDA): www.choosemyplate.gov
NAPSACC (Nutrition and Physical Activity Self Assessment for Child Care: gonapsacc.org/
U.S. Department of Health and Human Services: www.healthfinder.gov

Physical Activity

Academy of Nutrition and Dietetics: www.eatright.org
American Academy of Pediatrics: www.aap.org
Centers for Disease Control and Prevention: www.cdc.gov
Eat and Play the 5-2-1 way: www.eatplay521.com/
Healthy children.org (American Academy of Pediatrics): www.healthychildren.org
Kids eat right (Academy of Nutrition and Dietetics & Academy of Nutrition and Dietetics Foundation): www.eatright.org/kids
Let's Move!: www.letsmove.gov
MyPlate (United States Department of Agriculture (USDA): www.choosemyplate.gov
National Association for Sport and Physical Education: www.aahperd.org
NAPSACC (Nutrition and Physical Activity Self Assessment for Child Care: gonapsacc.org/
www.aahperd.org/naspe/standards/nationalguidelines/activestart.cfm
U.S. Department of Health and Human Services: www.healthfinder.gov

Program Resources

Iowa Department of Education – Nutrition Programs: www.educateiowa.gov/pk-12/nutrition-programs
Iowa State University Extension and Outreach – Nutrition Programs: www.extension.iastate.edu/humansciences/healthy-living-and-eating-families
Iowa WIC Program: www.idph.state.ia.us/wic/Resources.aspx?SubPg=Education

For references and additional information, please visit www.idph.state.ia.us/wic/Resources.aspx?SubPg=Education

5 Things You Should Know about Early Childhood Physical Health

1 Children should get regular, preventive well-child exams.

Well-child visits at an established medical home provide an important review of development, behavior, immunizations, oral health, vision, and hearing. Preventive care is important to keep children healthy. Well-child visits are key times for communication between families and their health care provider. Families should expect to be given information about normal development, nutrition, sleep, safety, communicable diseases, and other important health or development topics. A child's health care provider will evaluate the child's development at each well-child exam, which should include a developmental screening. Families should talk to their child's health care provider about any concerns or questions they have related to their child's health and development. Children grow and develop at their own pace so health and wellbeing must be considered within the context of each individual child.

2 All children should be immunized at regular health care visits.

Immunizations are important for keeping children healthy. The childhood and adolescent schedule recommends immunizations start at birth through 24 months of age, with boosters and catch-up vaccines continuing throughout the teenage years and into adulthood. By immunizing, we safeguard our children against the potentially devastating effects of vaccine-preventable diseases. Families are encouraged to speak with their health or early care and education providers if they have concerns or questions about immunizations.

3 Lead exposure can affect children's overall health and wellbeing for a lifetime.

Lead is a neurotoxin. Even at low levels of exposure, lead can cause reduction in a child's IQ and attention span, as well as result in reading and learning disabilities, hyperactivity, and behavioral difficulties. These effects are permanent, affecting a child's ability to learn, succeed in school, and function later in life. Lead exposure to children primarily occurs through chipping and peeling interior and exterior wall paint. The Iowa Department of Public Health recommends children participate in lead testing as early as 9 months. This is the age when children begin to explore their environments. Children should be tested again at 18 months of age and then annually until 6 years of age. The effects of lead exposure can be reduced by eating healthy foods, practicing good hand washing, removing shoes before entering a home, and early testing. It is also important to think about the lead safety of other homes (caregivers, friends, or grandparents) where children may spend a large amount of time. If you have questions about lead exposure, talk to your health care provider.

4 Adequate supervision and adult modeling of safe behaviors are necessary for keeping children safe while also supporting learning.

Accidents, or unintentional injuries, are the leading cause of death for infants and toddlers. Because young, exploring children lack the judgment to avoid dangerous situations, adults have the responsibility to provide direct supervision, safe routines, and age appropriate equipment, toys, and environments. While providing a safe environment and supervision, adults influence children's learning by being actively involved in children's play and by providing a variety of materials for play and exploration that encourage children to try new experiences.

For references and additional information, please visit www.idph.state.ia.us/

5 Things You Should Know about Early Childhood Physical Health

5 Balanced nutrition, adequate sleep, and physical activity help children grow and set the stage for healthy habits and lifelong learning.

Young children must have their basic needs met in order to be ready to learn. Children need nutritious foods to sustain the growth, activity, and functioning of their bodies, including their brains. Current research documents that a balanced diet, combined with daily age-appropriate physical activities, can reduce diet-related risks of obesity and chronic disease. Modeling healthy eating behavior and physical activity by adults help children to develop lifelong healthy habits. For infants, it is important to avoid equipment that limits their movements such as bouncy seats, exersaucers, and high chairs. Infant's movement skills are best developed through interacting with adults on safe floor spaces. Toddlers should participate in at least 30 minutes a day of physical activity and preschoolers should participate in at least 60 minutes. Physical activity includes walking, running, climbing, playing with balls, dancing, and using age appropriate playground equipment. Limiting the use of screens, such as computers, TV, and I-pads, can help with encouraging physical activity. The American Academy of Pediatrics recommends the following:

- Children under 2 years of age should not be exposed to screens; this includes TV and computers.
- For children ages 2 and older, screen time should be limited to no more than 30 minutes per week during child care. In family settings screen time should be child appropriate, limited to 1-2 hours per day, and include adult interaction.

Sleep is a vital need that is essential to a child's health and development. Sleep promotes alertness, memory, and performance. Children who get enough sleep have fewer behavior problems. After six months of age, most children will nap between 30 minutes to two hours per day. Infants should be put to sleep on their backs to lower the risk of Sudden Infant Death Syndrome (SIDS). The American Academy of Pediatrics also recommends that adults should avoid placing young children to sleep on a water bed, sofa, pillow, soft mattress, or with stuffed animals or blankets.

Resources

Well Child Exams
Iowa Department of Public Health: www.idph.state.ia.us/hpcdp/common/pdf/periodicity_schedule.pdf

Developmental Milestones
March of Dimes: www.marchofdimes.com/baby/your-growing-baby.aspx

Immunizations
Center for Disease Control: www.cdc.gov/vaccines/schedules/index.html

Lead Poisoning
Iowa Department of Public Health: www.idph.state.ia.us/LPP/Default.aspx
Center for Disease Control: www.cdc.gov/nceh/lead/ACCLPP/Lead_Levels_in_Children_Fact_Sheet.pdf

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2,000 DAYS