**Supplementary Table 1: Examples of medical conditions associated with Pediatric Feeding Disorder**

|  |  |
| --- | --- |
| **Impairment (Body structure/function\*)** | **Dysfunction (Activity Limitations\*)** |
| **Disorders that affect oral, nasal, or pharyngeal function** * Macroglossia
* Extensive dental disease
* Labial or palatal clefts
* Velopharyngeal insufficiency
* Choanal atresia
* Tonsillar hypertrophy

**Aerodigestive disease** * **Airway**
* Laryngeal clefts
* Vocal fold paralysis or injury
* Airway malacia (laryngo-, tracheo-, or bronchomalacia)
* Subglottic stenosis
* **Pulmonary**
* Bronchopulmonary dysplasia
* Any process resulting in chronic tachypnea
* **Gastrointestinal**
* Eosinophilic esophagitis
* Esophageal motility disorder (post-esophageal atresia or achalasia)
* Gastric or duodenal ulcers
* **Other gastrointestinal disorders**
* Feeding/volume intolerance of any cause
* Gastroparesis

**Congenital and other heart disease** * Any form of congenital heart disease (esp. hypoplastic left heart syndrome) and other conditions that result in staged single ventricle repair
* Associated pulmonary hypertension
* Myocarditis and other causes of heart failure

**Neurologic, developmental, and psychiatric disorders** * **Autism spectrum disorder**
* **Disorders of motor control with hyper- or hypotonia**
* Cerebral palsy
* Muscular dystrophies
* **Attention-deficit/hyperactivity disorder**

**Iatrogenic*** Prolonged hospitalization with critical care support
* Invasive operative procedures affecting vital systems
* Aversive feeding
 | * Malnutrition and its sequelae
* Aspiration, recurrent aspiration pneumonias, chronic lung disease
 |

**Supplementary Table 2: Nutritional dysfunction associated with Pediatric Feeding Disorder**

|  |  |  |
| --- | --- | --- |
| **Goal** | **Dysfunction** | **Examples of Health Conditions** |
| **Macronutrient consumption**EnergyProteinFat | Inadequate EnergyExcessive Energy#Inadequate ProteinInadequate Fat | * Undernutrition
* Overweight#
* Stunting
* Impaired neurodevelopment
* Essential fatty acid deficiency
* Need for tube feeding
* Need for texture modification
 |
| **Micronutrient consumption**Key micronutrients^ - calcium, vitamin D, iron, zinc, vitamin C, vitamin A, beta-carotene | Inadequate MicronutrientExcessive Micronutrient# | * Rickets
* Iron deficiency anemia
* Impaired immune function
* Loss of appetite
* Scurvy
* Toxicity of vitamin A/beta-carotene#
* Other nutritional anemias
 |
| **Consumption of other critical non-nutritive elements** | Inadequate water/fluidInadequate fiber | * Dehydration
* Constipation
 |
| **Dietary diversity**Normal dietary diversity for social functioning^ | Inadequate dietary diversity | * Impaired social functioning
* Micronutrient deficiency
* Macronutrient deficiency
 |

**Legend:** ^ will vary depending on sociocultural and nutritional beliefs and practices; # these are less common

**Supplementary Table 3: Examples of Feeding Skill impairments and Dysfunction associated with Pediatric Feeding Disorder**

|  |  |
| --- | --- |
| **Impairment** (Body functions and impairments \*) | **Dysfunction** (Activities and participation/limitations and restrictions\*) |
| **Oral sensory functioning** * Under- or over-response to sensory aspects of liquids and food textures inhibiting acceptance and/or tolerance

**Oral motor function** * Reduced strength, coordination, range of motion, timing inhibiting oral movements required for acceptance, control, manipulation and/or oral transit of liquids and food textures

**Pharyngeal sensory processing and/or motor function** * Under- or over-response to bolus during pharyngeal transit or residue remaining post-swallow
* Reduced strength, coordination, range of motion, timing impacting pharyngeal transit of liquids and food textures
* Inhibiting efficient swallowing and/or airway protection
 | **Limitation in oral feeding skills*** Unable to consume age-appropriate liquid and food textures
* Unable to use age-appropriate feeding utensils and devices
* Unable to self-feed at age-appropriate expectations
* Unable to use age-appropriate mealtime seating
* Requires more assistance or requires special strategies relative to other children of same age
* Prolonged mealtime duration
* Insufficient oral intake

**Restrictions in mealtime participation due to safety concerns:*** Adverse mealtime events (e.g. coughing, choking, gagging, vomiting, discomfort, stress, fatigue, refusal)
* Adverse cardio-respiratory events (e.g. apnea, bradycardia, increased work of breathing)
* Aspiration
 |

**Legend:** \* International Classification of Functioning, Disability, and Health (ICF) terminology

**Supplementary Table 4: Examples of psychosocial conditions associated with Pediatric Feeding Disorder**

|  |  |
| --- | --- |
| **Psychosocial Restriction (Health Conditions and Problems\*)** | **Impact on Feeding Behaviors** |
| **Developmental (child and/or caregiver)*** Delay
* Disorder

**Mental/Behavioral Health (child and/or caregiver)** * Diagnosed disorder
* Undiagnosed signs/symptoms of disorder
* Deregulated temperament/personality characteristics

**Social*** Caregiver-child interaction problems
* Cultural expectations are not commensurate with AAP nutrition guidelines

**Environmental*** Disorganized/distracting feeding environment
* Disorganized or poorly timed schedule of feedings
* Access to food or other necessary resources
* Inadvertent reinforcement of food refusal behavior
 | * **Learned aversion (child and/or caregiver)**
* **Stress/distress (child and/or caregiver)**
	+ Caregiver disengagement
	+ Caregiver over-engagement
* **Disruptive behavior**
	+ Food refusal (passive & active resistance)
	+ Gagging/vomiting
	+ Elopement/attempts to disengage or flee from meal
* **Food over-selectivity**
* **Failure to advance to age-appropriate diet or feeding habit despite adequate skill**
	+ Reliance on formula beyond expected chronological age
	+ Failure to consume age-typical texture
	+ Not feeding self at age-typical level
* **Grazing behavior**
* **Caregiver use of compensatory strategies to feed child**
 |

**Legend**: \* International Classification of Functioning, Disability, and Health (ICF) terminology; AAP: American Academy of Pediatrics

**Supplementary Table 5. Specialist members of the interdisciplinary team caring for Pediatric Feeding Disorder**

|  |  |  |
| --- | --- | --- |
| **Team member** | **Provider type(s)** | **Role** |
| Physician | General pediatrician Pediatric gastroenterologist Developmental-behavioral pediatricianNeurodevelopmental pediatrician | Assess and treat medical conditions associated with impairment and dysfunctionCoordinate care between team members |
| Dietitian | Registered dietitian-nutritionist (RD / RDN) | Assess dietary adequacy and recommend nutritional therapies  |
| Feeding specialist | Speech-language pathologist or occupational therapist with expertise in PFD | Assess and treat feeding skills and swallowing |
| Child psychologist | Behavioral psychologist, preferably with experience in treating PFD  | Assess and treat psychosocial impairment and dysfunction |
| Other physician(s) | Otolaryngologist, pulmonologist, child neurologist, dentist, pediatric surgeon, psychiatrist, radiologist, allergist, physiatrist/physical medicine and rehabilitation specialist | Provide ancillary recommendations to address specific impairments related to medical conditions |
| Nurse | Registered nurse | Coordinate care, assist with procurement and education regarding use of formulas and durable medical equipment, support family |
| Social worker | Clinical social workerCase manager | Help implement team-recommended environmental adaptations to reduce the scope of disability caused by PFD, by helping the family to procure appropriate home and school services to minimize activity limitation and maximize participation |

Legend: PFD: Pediatric Feeding Disorder