

Show Me School Health: Whole Package Tracheostomy

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This page will provide a brief overview of tracheostomies. Most often, a student who has a tracheostomy requires one-on-one nursing support in school, especially if that student requires mechanical ventilation. If the student has a one-on-one nurse, that nurse should travel with the student on the bus from home to school and return to home with the student (Porter, et al., 2019). Although the student may have a one-on-one nurse, the school nurse should still be involved in the case management of the student including the development of an Individualized Health Care Plan and emergency preparedness planning. It is essential that the school nurse is aware of the reason for the student's tracheostomy and should know whether the student can breathe through their natural airway if the tube is dislodged and if they can breathe without the support of the ventilator for a short time, if applicable (University of Wisconsin–Madison School of Nursing, et al., 2023d).

If the school nurse will be responsible for the day-to-day care of a student with a tracheostomy, it is recommended that they identify local resources (hospital, home health agency, health care provider) for continuing education, including hands-on training on tracheostomy procedures.

Overview of the Health Condition

A tracheostomy is a surgical procedure that creates an opening in the anterior wall of the trachea to facilitate airway access and ventilation. The procedure may be performed on an emergency basis or as an elective, and it may be combined with mechanical ventilation (Fox, 2024). A stoma is the opening of the tracheostomy. The stoma is kept open with a tracheostomy tube (University of Wisconsin–Madison School of Nursing, et al., 2023a).

Indications for Use:

- Upper airway obstruction or abnormalities
- The need for chronic ventilatory support
- Abnormal ventilatory drive

- Neuromuscular conditions affecting ventilation
- Bronchomalacia
- Chronic aspiration

Tracheostomy Tubes:

Tracheostomy tubes vary in diameter, length, curvature, single or dual cannula, material (plastic, metal), cuff versus cuffless, and fenestrated (holes in tracheostomy shaft) or unfenestrated. All tracheostomy tubes have similar parts which include:

- Cannula or shaft
 - Part that goes in the stoma
 - Single cannula is a single unit and is generally seen in infants and toddlers
 - Double cannula has an outer cannula that stays in place in the child and an inner cannula that is removable
- Adaptor:
 - Universal size to allow connection of respiratory equipment
- Flange:
 - Place to connect the ties
- Obturator
 - Guide used during tracheostomy tube change

(American Academy of Pediatrics, 2019; University of Wisconsin–Madison School of Nursing, et al., 2023a)

Cuffed vs. Cuffless:

Tracheostomy tubes can be cuffed or cuffless. Depending on the brand, the cuff is either inflated with water or air. The type of tracheostomy tube used will be documented in the order from the health care provider. Additionally, if a cuffed tube is to be deflated, that should be indicated in the health care provider's order as well. It is recommended that the cuff should be deflated when the student no longer requires mechanical ventilation and is not at risk of aspiration (Mitchell, et al., 2012).

Characteristics and functions of a cuffed tracheostomy tube include:

- Balloon is present around the distal end of the cannula
- Balloon forms a seal between the tracheostomy tube and the trachea when inflated
- Used to prevent air leak around the tracheostomy tube when the child is on ventilator
- May reduce risk of aspiration of upper airway secretions when inflated
- Balloon is filled with either sterile water or air depending on type of cuff

(University of Wisconsin–Madison School of Nursing, et al., 2023a)

Common Brands of Tracheostomy Tubes:

[Portex™ Bivona® Tracheostomy Tubes](#)

[Shiley® Tracheostomy Tube](#)

[Tracoe® Tracheostomy Tubes](#)

Fenestrated Tracheostomy Tube:

These tubes have an opening in the shaft of the tube that allows the student to talk when the external opening of the tube is blocked either by a finger or a special speaking valve. The opening in the tube allows air to pass across the vocal cords in the upper airway to make speech sounds (American Academy of Pediatrics, 2019).

Physiological Changes that Occur Because of Tracheostomy:

The air inhaled through the tracheostomy will go directly into the lungs bypassing the upper airway, this prevents the child from being able to speak, warm, filter, and moisturize the air to 100% relative humidity. The inability to complete these functions needs to be compensated. “This compensation is critical to ensure the child is breathing comfortably and that the lungs and airway are functioning to their highest potential” (University of Wisconsin–Madison School of Nursing, et al., 2023a). Some tools that help to compensate for these inabilities include:

- [Heated Trach Collar](#)
- [Heat Moisture Exchange \(HME\)](#)
- [Passy-Muir Valve \(PMV\)](#)

The method of humidification will be prescribed by the physician with a time limit for each kind. The child always needs some type of humidification in place (unless the speaking valve is being used).

Suctioning:

Suctioning is one of the more common and necessary procedures that will be performed in the school setting on a student with a tracheostomy. Suctioning is needed to remove mucus from the tracheostomy tube, so it does not block airflow. Most tracheostomy suctioning performed in the school setting is performed using clean technique. The school nurse should verify the method to use with the health care provider. Some families are taught to apply suction when they are inserting and removing the suction catheter from the student’s tracheostomy and some are taught to only apply suctioning when removing the catheter. The school nurse should review the health care provider’s order to determine what method to use. The suction catheter should be stored in a clean container between uses and can be used for the entire school day but should be replaced every eight hours (University of Wisconsin–Madison School of Nursing, et al., 2023c).

Every student with a tracheostomy will have an “absolute length of catheter insertion” also known as a “measured length”. This is determined by the length of the student’s tracheostomy tube. The “absolute length” should be documented on the health care provider’s order. When suctioning, the catheter should not be inserted deeper than the absolute length of catheter insertion. The “measured length” will change anytime there is a change in the tracheostomy tube size or brand of tracheostomy. “Deep suctioning” up to or beyond the tracheal carina (point of bronchial bifurcation and tissue resistance) should not be indicated in a school setting, as it may cause epithelial damage (University of Wisconsin–Madison School of Nursing, et al., 2023c).

It is important to note that the use of normal saline to lavage the tracheostomy tube is no longer routinely recommended. If it is used it is based on the health care provider's order and, if indicated, to assist with the removal of thick secretions, needs to be used judiciously (Blakeman, et al., 2022).

For more information on suctioning, go [showmeschoolhealth.org > Just in Time resources > Search Tracheostomy](#)

Oxygen:

Some students with tracheostomies may require supplemental oxygen. The oxygen is used to maintain oxygen saturations within the range determined by the student's health care provider. There are three types of oxygen systems for home/school use:

[Oxygen concentrator](#)

[Oxygen cylinders/tanks](#)

[Liquid oxygen](#)

As oxygen is a medication, an order from a health care provider is required. The order should include:

- Student's name
- Date of birth
- Diagnosis
- Oxygen flow rate
 - Adjustments in rate due to symptoms, pulse oximeter reading
- The method of delivery
- If oxygen is to be humidified
- Oxygen administration schedule (i.e. continuous versus as needed)
- Parameters for oxygen administration (if not continuous)
- Oxygen supply system (compressed gas, liquid oxygen, oxygen concentrator)
- Pulse oximetry use
 - Parameters for pulse oximeter alarms
- What constitutes an emergency for the student

(Porter, et al., 2019)

If a student requires supplemental oxygen, the school nurse should develop a plan to ensure that the student has access to their oxygen supply in all areas of the school where the student will be and that the oxygen levels are checked every day. The school nurse or the one-on-one nurse should determine the length of time each oxygen container will last based on the oxygen flow rate being used for the student and ensure that there is enough oxygen available in the school at all times (Porter, et al., 2019). Additionally, the school nurse and one-on-one nurse should ensure the following safety precautions are being implemented:

- No smoking or open flames near oxygen.
- Store oxygen away from heaters, radiators and hot sun.
- A prominent "OXYGEN IN USE" sign should be displayed in the room and in the hallway outside the room (check with local fire department about other postings needed).

- Never permit oil, grease or highly flammable material to come in contact with oxygen cylinders, regulators or fittings. Do not lubricate with oil or other flammable substances, and do not handle equipment with oily hands or rags. This precaution is especially important in the high school setting where students may be cooking in class or heating chemicals in a lab. Modifications to the class lesson may have to be made for students on oxygen.
- Never put any covering over an oxygen gas tank.
- Include the name and phone numbers of the contact person at the home oxygen supply company on the tank and on the emergency plan.
- Return any defective equipment for replacement.
- Have spare oxygen readily accessible (but stored safely), depending on the student's needs. Keep extra tubing and tank wrenches easily accessible.
- Protect the regulator from becoming dislodged (a hissing noise may indicate a leak in the system).
- Make sure the tank is secured safely in the stand so it cannot fall or be knocked over.
- Check oxygen tubing frequently for kinks, blockages, punctures or disconnection.
- Use only the prescribed flowmeter setting.
- Notify the nearest fire department if a student will be using supplemental oxygen in the school setting.
- When transporting, secure the tank in the upright position and protect the regulator and valves from damage.
- Have an emergency care plan in place in case of evacuation or other emergency (Children's Healthcare of Atlanta, 2019, p. 4).
- Always have a fire extinguisher nearby.
- Do not use aerosol sprays such as air fresheners or hairspray near the oxygen unit. Aerosols are very flammable.
- Avoid flammable creams and lotions such as vapor rubs, petroleum jelly or oil-based hand lotion. Use water-based products instead.
- Do not use alcohol-based hand sanitizers, unless you thoroughly rub them into your skin and let your hands dry completely before handling oxygen equipment.
- Do not store the oxygen in an enclosed space, like a closet.
- Be careful not to trip over the tubing. Never cut the tubing or use more than a 50-foot long piece.
- Never use an extension cord to plug in the concentrator or plug anything else into the same outlet (American Lung Association, 2024).

Mechanical Ventilation:

Some students may require mechanical ventilation. "A one-on-one nurse specifically trained on the skills required to care for the specific ventilator is required" (Porter, et al., 2019, p. 736). Although a one-on-one nurse should be responsible for the care of the student, "the school nurse should also be capable of caring for the student on a ventilator in case of an emergency" (Porter, et al., 2019, p. 736). The school nurse should know the specifics of the student's ventilator, which can be taught by the one-on-one nurse or learned by inviting the durable medical equipment company representative to provide in-service (Porter, et al., 2019).

Diseases that affect a child's lower airway can impact their ability to breathe on their own. A child may require a ventilator for any of the following reasons:

- Poor air movement
- Inadequate gas exchange
- Inadequate muscle strength

Long-Term Mechanical Ventilation

Table 1: Reasons for Long-Term Mechanical Ventilation

Type	Issue	Example
Central Nervous System abnormality	Decreased drive to breath	Congenital Central Hypoventilation Syndrome
Muscle Weakness	Inability to breath	Spinal muscular atrophy
		Duchenne muscular dystrophy
Muscle paralysis	Inability to breathe	Cervical spinal cord injury: traumatic injury at or above C5 level
Lung or airway disease	Increased work of breathing	Bronchopulmonary dysplasia
		Complex congenital cardiac disease

Source: University of Wisconsin–Madison School of Nursing, et al., 2023b

The University of Wisconsin–Madison School of Nursing, UW Health Kids, and Children's Hospital of Wisconsin have developed a [free online training](#) that provides more in-depth education and information on tracheostomies and mechanical ventilation.

Manual Resuscitation:

Even if the student has a one-on-one nurse, the school nurse should be familiar with how to provide manual resuscitation to a student with a tracheostomy and the reasons that it might be needed, which include:

- To give larger breaths than the child can take after suctioning
- When disconnected from the ventilator during circuit changes or problems
- To provide inhaled medications
- During emergencies

(University of Wisconsin–Madison School of Nursing, et al., 2023b).

Possible Complications:

Table 2. Accidental Decannulation

Accidental Decannulation	
Signs and Symptoms:	Causes:
<ul style="list-style-type: none"> ● Increased work of breathing ● Change in skin color (pale or cyanotic) ● Respiratory distress ● Change in color ● Drop in oxygen saturation ● Increased work of breathing ● Hearing audible noises from a child who previously couldn't vocalize ● Alarms on pulse ox for high or low heart rate, or low oxygen saturation ● Ventilator alarm for low minute ventilation ● Visually observing trach out of stoma 	<ul style="list-style-type: none"> ● Loose tracheostomy ties ● Short tracheostomy tube (as child grows they will need a longer trach tube) ● Respiratory equipment pulling on trach ● Child playing with tracheostomy tube or respiratory tubing ● Child moves or holder lets go of trach during care or tie change
Important Reminders:	
<ul style="list-style-type: none"> ● When assessing an alarm or distressed child ALWAYS start at the stoma site! A decannulated tracheostomy tube may be hidden under a dressing or clothing. ● Assess the patient before the equipment 	

Source: (Estrem, et al., 2020; University of Wisconsin–Madison School of Nursing, et al., 2023e).

Table 3. Tube Obstruction

Tube Obstruction		
Potential Cause:	Signs of Tube Obstruction:	Prevention Steps:
<ul style="list-style-type: none"> ● Mucus plug ● Inadequate humidity ● Increased or thick secretions ● Respiratory infection ● Dehydration 	<ul style="list-style-type: none"> ● Respiratory distress ● Color change ● Drop in oxygen saturation ● Activated ventilator alarms ● Increased work of breathing 	<ul style="list-style-type: none"> ● Provide adequate heated humidity (limit HME and speaking valve use) ● Frequent suctioning (increase if child is sick) ● Increase enteral fluid intake if directed by the child's health care provider ● Notify physician if you notice an increase in thickness of secretions ● Increase airway clearance regimen as applicable ("sick plan")

Source: Estrem, et al., 2020; University of Wisconsin–Madison School of Nursing, et al., 2023e.

Table 4. Difficult Tracheostomy Tube Insertion

Difficult Tracheostomy Tube Insertion	
Possible Cause:	Treatment:
Granuloma at the stoma site or internal tracheal granuloma	Discuss treatment with physician if visible granuloma
Poor positioning	Use shoulder roll and hyperextend neck Change insertion angle to guide tracheostomy tube in from side of stoma
Dryness of tube or stoma	Lubricate tube
Child tensing up	Pull down on stoma, calm child and wait for child to inhale
Partially closed stoma (if tracheostomy tube has been dislodged for too long)	If unable to insert a same size tracheostomy tube, insert the down size

Source: University of Wisconsin–Madison School of Nursing, et al., 2023e.

Table 5. Skin Irritation

Skin Irritation	
Possible Cause:	Treatment:
Ties being too tight	Loosen ties if they are too tight (but make sure that a finger can barely fit under the ties and that the trach is secure)
Moisture	Apply barrier cream under ties or around stoma (review school policy to see if health care provider and/or parent authorization is required)
	Change ties or dressing more frequently if wet
	Remove foam dressing if holding moisture against the skin
	If small bumps are noted, it could be caused by yeast, contact parents/guardians or use nystatin cream near stoma or nystatin powder on ties (with appropriate health care provider order and parent/guardian authorization)

Source: University of Wisconsin–Madison School of Nursing, et al., 2023d.

Caring for a Student with a Tracheostomy in the School Setting: one-on-one Nurse:

The American Thoracic Society (Sterni, et al., 2016) and the American Academy of Pediatrics (2019) agree that a student with tracheostomy must have a trained caregiver present at all times, even in school. If the student has a one-on-one nurse, that nurse should travel with the student on the bus from home to school and return to home with the student (Porter, Page, & Somppi, 2013; Porter, et al., 2019). The American Academy of Pediatrics (2019) states that the trained person should be “a registered nurse (RN) or licensed practical nurse (LPN)” (p. 194).

Information the School Nurse Should Be Aware Of:

Even if the school nurse is not responsible for the day-to-day care of the student with a tracheostomy tube, the school nurse should still familiarize themselves with the student and their health condition. The school nurse should:

- Know the reason the student has a tracheostomy
 - “Knowing the reason for the tracheostomy is key in determining the child’s risk of a life threatening event” (University of Wisconsin–Madison School of Nursing, et al., 2023a).
 - Is their upper and lower airway still connected?
 - Is there significant narrowing in the upper airway?
 - **Children who are very dependent on a tracheostomy due to an inadequate airway are at much higher risk for life threatening events** (University of Wisconsin–Madison School of Nursing, et al., 2023a).
- Be familiar with any concerns associated with the student’s health condition

- Know the student's baseline status, including:
 - Typical respiratory rate
 - Typical respiratory effort
 - Pulse
 - Secretions (amount, color, consistency)
- Know the student's ability to clear their own secretions
- How often the student requires suctioning
- Type of tracheostomy tube used
- Devices used to warm or moisturize the air
- What supplies are kept in the student's emergency go bag
- Be familiar with how the student communicates

(Children's Hospital of Atlanta, 2017).

Delegation

Since it is recommended that a skilled caregiver, preferably an RN or LPN, be present with the student with a tracheostomy at all times, there should not be any tracheostomy related procedures that would be delegated to a UAP. If the unlicensed assistive personnel (UAP) is assisting with other activities of daily living (ADLs), the UAP should be educated and trained on the precautions they should be aware of when assisting a student with a tracheostomy.

The National Council of State Boards of Nursing and the American Nurses Association (2019) state, "Delegation is allowing a delegatee to perform a specific nursing activity, skill, or procedure that is beyond the delegatee's traditional role and not routinely performed" (p. 2). Since the Missouri Nurse Practice act allows tracheostomy care to be performed by LPNs and is routinely performed by LPNs in Missouri, the registered nurse or physician would be delegating tracheostomy procedures to an LPN.

Depending on the staffing model the school uses to acquire one-on-one nursing services for the student with a tracheostomy, the school nurse may or may not be responsible for supervising the LPN. For example, if the district hires a one-on-one nurse who is an LPN, the registered nurse would be responsible for supervising the LPN. If the one-on-one is hired through a contract or Memorandum of Understanding (MOU) with an agency, then the school nurse would not be required to supervise the LPN but the contract or MOU should outline each individual's roles and communication requirements. For more information on agency nurses or MOUs, see the [Communication](#) section.

School Environment

Classroom Environment:

A student that requires oxygen or mechanical ventilation should have their equipment plugged in whenever possible to preserve battery use (Porter, Page, & Somppi, 2013). Additionally, students with a tracheostomy may have other underlying health conditions that make mobility difficult and they may be wheelchair bound. The school nurse should ensure that the classroom

environment provides adequate space to maneuver. For more information regarding students with mobility issues see the [Limited Mobility Whole Package resources](#).

The student with a tracheostomy will need to be cautious to avoid items that could get into their tracheostomy opening. The school nurse should work with the classroom teacher(s) to minimize the student's exposure to toys or objects that shed fur or fuzz, including fuzzy blankets and stuffed animals (Nationwide Children's, 2017). When the student is participating in art class accommodations should be made so that they are not being exposed to art supplies that could get into their tracheostomy opening (chalk dust, powder, glitter, etc.).

Physical Education and Recess:

The school nurse should review the health care provider's order to see if there are any activity restrictions associated with the student's underlying health condition and/or tracheostomy tube that may require activity restrictions or precautions during physical education class or at recess. The student may require accommodations in physical education or adaptive physical education. When the student is outside it is important to protect their tracheostomy opening from anything that could blow into it, such as dust or dirt (Nationwide Children's, 2017). Review the health care provider's order to determine what equipment may be necessary when the student is outdoors.

Education of Peers and School Staff:

The school nurse may want to discuss with the student and their family about their desire for the student's peers and school staff to be made aware and educated about the student's underlying health condition and/or need for the tracheostomy tube. Depending on the student and family's wishes, educating peers may help alleviate endless questions and help teach peers on how to be supportive and inclusive.

Student

An important first step when caring for a student who has a health condition that requires a tracheostomy tube would be to complete a health history and physical assessment, preferably with the student and their parents present. Even if the student will be cared for by a one-on-one nurse it would still be important for the school nurse to complete their own health history and physical assessment of the student. Additionally, the school nurse may also want to develop a plan with the one-on-one nurse that the student stops by the health room on a daily basis so the school nurse can touch base and be made aware of any concerns or issues.

Health History Questions:

- Medical conditions
- Medications
- Allergies
- Previous hospitalizations
- Insurance coverage
- Health care provider(s) name and contact information
- Preferred hospital, if applicable

Assessment Questions: The school nurse may want to consider asking the student and their parents/guardians the following additional questions:

1. Reason the student has a tracheostomy
2. Is the tracheostomy used for only nighttime ventilation?
3. What is the suctioning and humidity protocol for school?
4. Does the student have a speaking valve (i.e., Passy-Muir)?
5. How often is the tracheostomy routinely changed
6. Is the student independent in any of the tracheostomy related cares?
7. How does the student react to tracheostomy changes?
8. The reason the student needs oxygen, if applicable
9. Is the oxygen used all the time or intermittently?
10. What does the student use for an oxygen system?
11. How long does the oxygen concentrator battery last?
12. What is the student's standard oxygen flow rate?
13. Is the oxygen flow rate based on the pulse oximeter reading?
14. Is there an order to titrate the oxygen based on the pulse oximeter reading?
15. What constitutes a need for activation of EMS?
16. The reason for the ventilator, if applicable
17. The type of ventilator used
18. Who is responsible for the ventilator in the event of a malfunction?
19. How does this health condition impact the student's daily life?
20. How often does the student miss school due to their health condition(s)?
21. Tell me about your friends.
22. How often do you spend time with them?
23. Has the student shared information about their health condition with their friends/peers?
24. Does the student or parent have any concerns about their student's health condition?
25. What challenges does the student face in managing their health condition?
26. Do you feel the student has been sufficiently supported by school staff in managing their health condition?
27. Who has the student been going to when they need help?
28. How often does the student have bad feelings about coming to school because they are worried/afraid/embarrassed about something (peers, assignments, teacher)?
29. Has the student had to change any social activities because of their health condition?
30. Has the student ever been picked on or bullied?
31. Does the student have a 504 Plan or Individualized Education Program (IEP)?
32. Would the student benefit from evaluations or assessments in these areas: physical therapy, occupational therapy, speech and language therapy, assistive technology, adapted physical education, functional behavior, psychology, hearing and vision?
33. Would the student benefit from additional academic support and/or modified education (i.e., copies of notes, extra time, reduced workload, simplified instructions, alternative formats for presentation of material, 504/IEP)?
34. Does the student have an Individualized Health Care Plan (IHCP)?
35. Is there a need for a specific plan for this student's individual needs if there is a crisis in the building?

36. How is the student transported to and from school?

37. Does the student attend before or after school care?

38. Does the student participate in school-sponsored clubs or athletics?

(Llorens, McKee, & Dempsey, 2020; Porter, Page, & Somppi, 2013)

Communication

Communication with Family: It is important for the school nurse to discuss with the student and their family the best way(s) to communicate with them. Does the parents/guardian have a preference (i.e., email, text, telephone call)? Do the parents prefer to have the communications sent to both parents or is there a parent who manages the communication with the school nurse?

The school nurse may want to consider having the parents/guardians complete a Health Insurance Portability and Accountability Act (HIPAA) compliant medical release form to facilitate communication with the student's health care team. Although HIPAA does not require parental consent to allow the school nurse to discuss the student's treatment plan, such as medications and nursing procedures, with the student's health care provider, having a signed consent form would undoubtedly make the process go smoother for all involved parties (U.S. Department of Health and Human Services & U.S. Department of Education, 2008).

FERPA HIPAA Consent Sample (NASN)

Considering that the one-on-one nurse may also be communicating with the family on a daily basis, the school nurse should coordinate with the one-on-one nurse to establish how communication with the family will be managed to ensure the information is being communicated but also to ensure that the family is not receiving duplicate information.

Communication with One-on-One Nurse:

Decisions regarding how the care for a student with a tracheostomy will be provided in the school setting should be made with communication with the student, their family, the student's primary or specialty care provider, the school nurse, and school administration. As previously mentioned, most students with tracheostomies will have a one-on-one nurse that accompanies them to school and addresses their health care needs at school. The one-on-one nurse could be hired by the school district or through a contract with a nurse who is either an independent personal care or private duty nurse or hired by a third-party agency, such as a home health care agency (Wisconsin Department of Public Instruction, 2011).

Care coordination involving a one-on-one nurse requires considerable amounts of communication and planning. The school nurse should meet with the one-on-one nurse to "explain the boundaries and expectations of care in the school" (Porter, et al., 2019, p. 723). School districts should have written and signed contracts or memorandum of understanding with the health care agency that clearly outlines the responsibilities of the personal nurse (Shannon & Minchella, 2015). The contract or Memorandum of Understanding (MOU) should outline:

- Services that will be provided by agency nurse
- Responsibilities of all parties involved
- How coverage will be arranged for the one-on-one nurse's breaks and absences
- Who will supervise the one-on-one nurse and how
- Contact information for individuals to call if there is a problem
- Who will obtain, maintain supplies and equipment

(Porter, et al., 2019; Shannon & Minchella, 2015)

The school nurse should regularly monitor and document the student's health status as well as the competency of the one-on-one nurse (Porter, et. al, 2019) and communicate with the agency nurse, teacher, and family regarding the child's health status (Selekman & Ness, 2019). The one-on-one nurse and the school nurse should develop a system so they can exchange written and verbal information and discuss changes in the student's health status. The school nurse should consider having the parents/guardians complete a HIPAA and FERPA Consent form. For more guidance on working with a one-on-one nurse, see the Table: Checklist for Contracted Personal Nurses at School below.

Table 6. Checklist for Contracted Personal Nurses at School

Checklist for Contracted Personal Nurses at School	
Role	Responsibilities and Actions
District Administrator	<ul style="list-style-type: none"> ● Develop policy and procedures for use of contracted personal nurses ● Establish contracts and Memorandum of Understanding with contract agency ● Obtain signatures needed ● Meet with agency administrator if needed ● Provide an education assistant or any support if the student needs assistance in writing or reading <ul style="list-style-type: none"> ○ The one-on-one nurse should not be expected to assist the student
School Nurse with support from School Administrator	<ul style="list-style-type: none"> ● Meet with IEP Team (including family); establish need for personal nurse; review procedures with team ● Complete forms for release of information between family, agency, and school ● Participate in IEP and develop IHP including plan for personal nurse Obtain doctor orders and parent authorization for meds, procedures, treatments, and equipment in school ● Provide training for personal nurse about school health protocols & procedures, including: <ul style="list-style-type: none"> ○ Assessment of condition and equipment prior to coming to school ○ Responsibility to care for student at all times ○ Health procedure protocols in school (e.g. where procedures will be done) ○ Emergency procedures and response

Checklist for Contracted Personal Nurses at School	
Role	Responsibilities and Actions
	<ul style="list-style-type: none"> ○ Communication contacts/ communication system with school nurse ○ Sharing of IHP and agency care plans ○ Documentation system and requirements ● Provide training of school staff in back up care, assistance as needed, and roles in emergencies ● Arrange training of personal nurse by school administrator about protocols and responsibilities, including: <ul style="list-style-type: none"> ○ Chain of command ○ School schedules ○ Campus emergencies and disaster protocols ○ Classroom protocols and responsibilities ○ Transportation protocols (may need involvement of transportation staff) ○ Confidentiality ○ Concept of team in school ○ Only teaching staff communicates educational information to family ○ Personnel rules: No smoking, limit cell phone use, no visitors, etc ● Arrange meeting with teacher to clarify classroom role / train in classroom responsibilities ● Monitor student health status and personal nurse competency in delivery of care; document ● Communicate regularly with personal nurse, family, and IEP team regarding student health status and progress
Responsibilities of Contract Agency	<ul style="list-style-type: none"> ● Provide personal nurse documentation: credentials, licensure, CPR cert, insurance, criminal check, ID, TB test ● Provide contact information of agency supervisor ● Training of personal nurse on special procedures and medical equipment ● Provide plan for personal nurse call off and substitute personal nurses ● Share agency plan of care with school nurse (at least every 60 days) ● Supervision of personal nurse competence and professionalism in the school environment
Responsibilities of Personal Nurse	<ul style="list-style-type: none"> ● Ongoing assessment of student and health care equipment maintenance at school ● Provide competent student care at all times with breaks through the day ● Only provide nursing services to the student they are contracted to care for ● Communicate condition updates and changes to school nurse ● Maintain confidentiality according to HIPPA and FERPA for the student they are caring for and other students that they may come in

Checklist for Contracted Personal Nurses at School	
Role	Responsibilities and Actions
	contact with <ul style="list-style-type: none"> • Documentation of student health status, meds, treatments, procedures for school and agency • Follow school personnel rules and procedures and demonstrate professional behavior

Source: Shannon & Minchella, 2015, p. 79

Communication with Health Care Provider: Similar to the communication with the family, the school nurse and one-on-one nurse should discuss how information will be shared with the health care provider. Regardless of who communicates the information, it is recommended that the school nurse and/or one-on-one nurse follow up with the student's health care provider if the student experiences:

- Color changes in secretions
- Coughing or congestion
- A bad smell from trach or stoma
- Working harder to breathe
- Fever of 101 degrees or higher
- Seeming irritable or tired
- Frequent monitor alarms
- Child just does not look or seem right (University of Wisconsin–Madison School of Nursing, et al., 2023a).

Medication

Health Care Provider Order:

Medications via Tracheostomy: For students who require medication administration via tracheostomy the following information should be included in the health care provider's order:

- Name of the student
- Date of birth
- Name of medication
- Dose
- Route
- Time of administration
- Reason for administration

Even if the medication is going to be administered by the one-on-one nurse, the school nurse should still have an order that permits them to administer the medication (Selekman & Ness, 2019).

The most common medications that are administered via a tracheostomy tube include:

- Bronchodilators:
 - Aid in airway clearance by relaxing the smooth muscle of the airways and help the cilia move the secretions. Albuterol and Ipratropium bromide are examples of bronchodilators, which can be given via nebulizer or metered dose inhaler (MDI).
- Mucolytics:
 - Improve airflow and airway clearance by thinning thick secretions. This will be given via nebulizer.
- Inhaled Steroids:
 - Reduce the inflammation in the airways thus improving the ability of secretions to move up the airway. They can be given via nebulizer or MDI.
- Inhaled Antibiotics, such as Tobramycin:
 - Used to treat chronic airway infections. This will be given via nebulizer.

If multiple medications are ordered to be administered at the same time they should be given in the order outlined above (University of Wisconsin–Madison School of Nursing, et al., 2023c) or according to the health care provider's orders.

Oxygen: Students who receive supplemental oxygen will need an order from a health care provider. The order should include:

- Student's name
- Date of birth
- Diagnosis
- Oxygen flow rate
- Adjustments in rate due to symptoms, pulse oximeter reading
- The method of delivery
- If oxygen is to be humidified
- Oxygen administration schedule (i.e. continuous versus as needed)
- Parameters for oxygen administration (if not continuous)
- Oxygen supply system (compressed gas, liquid oxygen, oxygen concentrator)
- Pulse oximetry use
 - Parameters for pulse oximeter alarms
- What constitutes an emergency for the student

(Porter, et al., 2019)

For more information on oxygen, see the [Overview of Health Condition](#) section.

Field Trip

Field trips and other out of school activities can add a layer of complexity to the care of a student with a tracheostomy tube, especially if the student will require suctioning or medication administration while on the field trip. It is important to note that the [Section 504 of the Rehabilitation Act](#) does not allow for a student with a disability to be excluded from a field trip due to their disability. Note, this list only considers factors related to the student's tracheostomy tube and does not consider a student who requires mechanical ventilation. If the student has other health conditions, including mechanical ventilation, more factors need to be considered.

There are several variables that the school nurse will want to consider and plan for, including:

- 1. Who will accompany the student on the field trip to perform necessary procedures or administer medication?**
 - a. The student's one-on-one nurse should accompany the student on the field trip
- 2. What supplies and medications are needed on the field trip?**
 - a. The student's Emergency Go Bag should accompany them at all times.
 - b. The supplies brought on the field trip should be enough for all routine procedures and extras for any emergency procedures that need to be performed.
 - c. If the student is on supplemental oxygen, the school nurse and one-on-one nurse should ensure that there is enough oxygen available for the entire length of the field trip (Porter, et al., 2019).
- 3. Where will the supplies and medications be stored?**
 - a. It is important to have all needed supplies readily available, especially the Go Bag, suction machine, and equipment, and oxygen, if applicable. Supplies should not be left on the bus but should be with the student at all times. (Erwin, Clark, & Mercer, 2014).
- 4. How will the student's privacy be protected?**
 - a. The school nurse should discuss with the student and their family where the procedures will be performed during the field trip and the student and family's expectations related to privacy.
- 5. How will safety and cleanliness be ensured?**
 - a. In addition to privacy, the school nurse must think through possible scenarios on where the procedure may be performed and what additional precautions and supplies may be needed to ensure safety and cleanliness.
- 6. How will the procedure be documented?**
 - a. Timely documentation is a key component of nursing. The school nurse and one-on-one nurse should consider how procedures and medication administration that occur on a field trip will be documented (Erwin, Clark, & Mercer, 2014; NASN, 2021).
- 7. Will special transportation be required to allow the student with a tracheostomy to attend the field trip?**
- 8. How will a student's Emergency Action Plan (if applicable) be modified on a field trip?**
 - a. The school nurse and one-on-one nurse will want to consider any potential emergencies that may arise on the field trip and develop plans on how to address them. The school nurse would want to determine where hospitals are in relation to

the field trip route or destination and identify the average Emergency Medical Services (EMS) response time. This information should then be used to make any necessary modifications to the Emergency Action Plan (NASN, 2019).

9. Is the field trip occurring out of state or out of the country?

- a. Field trips that occur out of the student's home state will require some additional planning. The school nurse and one-on-one nurse will want to determine if the state(s) that will be traveled through or visited are a part of the [Nurse Licensure Compact](#). For out of the country field trips, the school nurse should discuss with school administration any applicable laws to determine what additional steps may be needed. In addition, the U.S. Embassy can provide information on points of contact for destination countries. The school will also want to connect with the student's parents/guardians regarding informing the [Transportation Security Administration](#) about the student's health needs.

(Erwin, Clark, & Mercer, 2014; NASN, 2019; Wisconsin Department of Public Instruction, 2019)

Documentation

The medical management of a student with a tracheostomy tube in the school setting will require the school nurse to acquire and complete numerous forms of documentation.

Health Care Provider Order:

The following information should be included in the health care provider's order:

1. The student's name
2. Date of birth
3. Type of tracheostomy tube
 - a. Including type, brand, size, diameter
4. Suction catheter size
5. Suction depth (also known as measured length or absolute length)
6. When to suction
7. Suction pressure
8. If suction is applied on insertion and removal of catheter or just on removal of catheter
9. When saline should be inserted into tracheostomy
10. Suction technique (clean versus sterile)
11. When oxygen is required
12. Oxygen rate
13. Method of humidification
14. Time limit for each kind of humidification prescribed
15. Ventilator settings
 - a. Including alarms
16. Length of time for speaking valve use and advancement plan
17. If the tracheostomy is capped:
 - a. When it is capped
 - b. For how long
18. If the student has an order for a pulse oximeter, the order should include:

- a. When pulse oximeter should be used
 - b. Alarm settings for low oxygen saturation
 - c. Alarm setting for high and low heart rate
19. Medications or products used for skin irritation
 20. Activity restrictions
 21. When the health care provider would like to be contacted
 22. What constitutes an emergency
 23. Steps to take in response to an emergency

Even if the tracheostomy procedures are going to be performed by the one-on-one nurse, the school nurse should still have an order that permits them to perform the procedures (Selekman & Ness, 2019).

For students who require medication administration through a tracheostomy or supplemental oxygen: See the [Medication](#) section for recommendations on information that should be included in the health care provider's order.

Emergency Action Plan: Students with a tracheostomy will require planning related to possible emergencies that may occur at school, including but not limited to accidental decannulation and tracheostomy tube obstruction. The Emergency Action Plan should include:

- Definition of medical emergency for this student.
- Signs of an emergent or worsening condition with steps to take to remediate or when to seek EMS care.
- Specific actions to be taken in the emergency, based on the signs and symptoms present.
- List of individuals to be notified when this emergency occurs along with their phone numbers.
- Transportation procedures (Missouri Department of Elementary and Secondary Education & Missouri Department of Health and Senior Services, 2014, pp. 72, 85).

The school nurse could develop an Emergency Action Plan and incorporate the emergency steps, including the necessary training of school staff, into the Individualized Health Care Plan. If the student has a Section 504 Plan or IEP, these emergency steps and planning should be documented in those plans as well.

[Children's Hospital of Colorado](#) has an example Tracheostomy School Care Plan that includes an emergency section. The Kennedy Krieger Institute has developed a [Tracheostomy Tube Emergency Action Plan template](#).

Parent/Guardian Authorization: In addition to the health care provider's order, the school nurse will also need written authorization from the parents/guardians to perform tracheostomy procedures at school. The authorization form can be a separate document that just the parents sign, or a document can be developed that combines the health care provider's order and parent authorization in one form.

If the student receives nursing services from a one-on-one nurse, the school nurse should also obtain parent/guardian authorization to perform tracheostomy procedures at school in case the school nurse ever needs to perform the procedures or assist the one-on-one nurse in performing the procedures.

Procedures and Medication Administration: All medication administration, feedings, and tracheostomy tube related procedures will need to be documented, whether they are performed by the school nurse, the one-on-one nurse, or the student. If the procedures are completed by the school nurse or the student or the one-on-one nurse that is employed by the school district, most times the medication administration and procedures are documented in the student's health record. The school nurse will also want to ensure that medications being administered or procedures being performed during field trips, before or after school, and/or during any school-sponsored activities are being documented. If the procedures and medication administration is being performed by an agency hired one-on-one nurse that is contracted with the school district the procedures and medication administration will most likely be documented in the agency's health care record. Where the procedures and medication administration are documented should be addressed in the MOU.

If the student will be receiving nursing services from an agency-hired one-on-one nurse the school nurse should discuss with school administration the requirements for documentation and eligibility of billing Medicaid of procedures and medication administration provided in the school setting, especially if the procedures are considered "related services" in the student's Individualized Education Program (IEP).

As previously mentioned, the school nurse should regularly monitor and document the student's health status as well as the competency of the one-on-one nurse, this information would be documented in the student's school health record (for more information, see the *Communication with the One-on-One Nurse* in the [Communication](#) section).

Individualized Health Care Plan:

It is recommended that the student's IHCP include the following information:

1. Brief health history
2. Medical diagnosis including reason for tracheostomy
3. Special health care needs of the student including procedures
 - a. Baseline health status
 - b. Physical endurance
 - c. Vital signs
 - d. Pain
 - e. Growth measurements
 - f. Level of involvement in self-care
 - g. How the child appears on a "good day"
4. Orders for tracheostomy type, size, and cuff (if applicable)
5. Orders for suction catheter size and suction depth, and indications for when to suction
6. Orders for ventilator settings

- a. Including alarms
 - 7. Orders for oxygen settings
 - 8. Medications
 - a. Medications administered at school
 - b. Emergency medications
 - c. Medications administered at home
 - 9. Diet, nutrition, and feeding
 - 10. Equipment needed
 - a. Tracheostomy tube size
 - b. Tracheostomy cuff size, if applicable
 - i. Milliliter amount of water or air
 - 11. Medical device information
 - 12. Possible complications and interventions
 - 13. Emergency Action Plan
 - 14. Child-specific emergencies
 - 15. Student's ability to assist with trach care
 - 16. History of respiratory distress including signs and symptoms of distress specific to the student
 - 17. Activity limitations
 - 18. Indication of who will be responsible for the daily procedures and medication administration (i.e. one-on-one nurse (agency or district hired) or school nurse).
- (Kennedy Krieger Institute, 2020; Porter, Page, & Somppi, 2013)

Section 504 Plan: Students with a tracheostomy tube may qualify for a Section 504 Plan since their health condition may impact a major life activity (breathing). If the student has been identified as qualifying for a 504 Plan, the school nurse may be involved in identifying appropriate accommodations and writing the plan. Once developed, the school nurse will want to frequently review, update, and document in the 504 Plan (NASN, 2020).

For more information on Section 504 Plans see [Legal Issues](#) section.

Individualized Education Program (IEP): If a student with a tracheostomy has an IEP where “related services” include nursing services, the school nurse will want to ensure they are providing and documenting the related services in the student’s education record, whether this is paper or electronic. This documentation is necessary for the school to validate that they are providing the services that the student has been determined to be eligible for under the Individuals with Disabilities Education Act (IDEA) (Galemore & Sheetz, 2015).

If the “related services” are being provided by an agency one-on-one nurse the school nurse should review what documentation is required from the agency one-on-one nurse for the student’s IEP records.

Procedure

Links to showmeschoolhealth.org > [Just in Time resources](#) > [Search Tracheostomy](#)

Emergency Preparedness

Although the school nurse may not be responsible for the day-to-day care of the student with a tracheostomy or a student who requires chronic mechanical ventilation, the school nurse should collaborate with the one-on-one nurse and school personnel to develop the appropriate emergency action plans and to plan for potential emergencies.

It is recommended that the nurse who is responsible for the daily procedures and medication administration (i.e., school nurse or one-on-one nurse) complete the following checks on a daily basis. (Note: the table below provides an overview of the equipment and supplies that the nurse should check on a daily basis. The list could change based on the needs of the student). The daily emergency check(s) should be documented in the student's health care record (Porter, Page, & Somppi, 2013).

Table 6. Daily Emergency Checks

Equipment:	Check:
Emergency Go-Bag	Emergency supplies and equipment in Emergency Go-Bag: <ul style="list-style-type: none"> ● Gloves ● Portable oxygen (if ordered) with appropriate size Ambu-bag ● Appropriate size Ambu-bag facemask (for emergencies when unable to reinsert a new tracheostomy tube) ● Portable suction machine that can operate with battery or electricity <ul style="list-style-type: none"> ○ Battery should have a full charge ● Sterile suction catheters ● Sterile saline vials ● Water-based lubricant ● Distilled or sterile water ● 4x4 gauze ● Split gauze dressing (if student uses) ● Unscented and dye free soap ● Syringe, if needed for tracheostomy tube cuff ● Sterile water for cuffed trach filled with water ● Two spare tracheostomy tubes (including obturator) — one the size the student currently uses and one that is a size smaller in the event that the tube needs to be changed and there is difficulty passing it through the stoma ● Obturator, if applicable

Equipment:	Check:
	<ul style="list-style-type: none"> ● Spare tracheostomy ties <ul style="list-style-type: none"> ○ It is recommended to have spare tracheostomy ties already secured to spare tracheostomy ● Blunt scissors ● Emergency phone numbers ● Pulse oximeter — may be optional if student is not on oxygen or mechanical ventilation
Portable suction	<ul style="list-style-type: none"> ● Correct suction pressure is set ● Proper catheters are available ● Suction machine is plugged in (if applicable) or battery is fully charged ● Any emergency suction equipment, i.e., DeLee suction trap is available
Resuscitation Bag	<ul style="list-style-type: none"> ● Is with the student at all times ● Intact and creates pressure when occluded ● Correct Positive End-Expiratory Pressure (PEEP) valve setting ● Auxillary ports closed ● Pop-off valve is working ● Oxygen tubing present and connects to oxygen supply
Oxygen Supply	<ul style="list-style-type: none"> ● Properly connected to ventilatory ● Connects properly to resuscitation bag ● Oxygen tank is full ● Wrench, connectors, and adapters are accessible
Emergency Oxygen Supply	<ul style="list-style-type: none"> ● Properly connects to ventilator and resuscitation bag ● Oxygen tank is full ● Wrench, connectors, and adapters are accessible
Ventilator	<ul style="list-style-type: none"> ● Primary and secondary settings are reviewed and correct ● Test lung is available ● Equipment is plugged in and charging ● Backup set of tubing is assembled and accessible
Pulse Oximeter	<ul style="list-style-type: none"> ● Proper probe placement ● Good waveform ● Review of prescribed alarm settings ● Disconnect oximeter to ensure alarms are functioning and can be heard in the classroom setting ● Equipment is plugged in, if applicable or battery is fully charged ● Replacement probes are available
Medication	<ul style="list-style-type: none"> ● Emergency medications in the correct doses are easily accessible (if applicable) in Emergency Go Bag ● Expiration dates are current

Equipment:	Check:
Infusion therapy pump, if needed	<ul style="list-style-type: none"> ● Adequate supplies ● Review prescribed medications and doses ● Power supply cable available ● Battery is fully charged
Communication	<ul style="list-style-type: none"> ● Phone(s) are working ● Phone(s) are fully charged ● Emergency phone numbers are documented and accessible
Food pump, if needed	<ul style="list-style-type: none"> ● Adequate supplies of formula and feeding bags ● Check power supply cable ● Check battery charge status of pump
Monitoring devices	<ul style="list-style-type: none"> ● Check that the following devices have a power supply and that the device is working properly (if applicable) <ul style="list-style-type: none"> ○ Blood pressure monitor ○ End-tidal CO2 monitor ○ Additional devices as needed
Nebulizer	<ul style="list-style-type: none"> ● Compressor and nebulizer cup are working properly ● New cup and medications are available ● Oxygen tank is available to use during a power outage to run nebulizer

Source: Estrem, et al., 2020

Some additional emergency preparedness steps the school nurse should take include:

- Knowing the reason for the student's tracheostomy
- Knowing if the student can breathe through their natural airway if the tube is dislodged and if they can breathe without the support of the ventilator for a short time, if applicable
- Having the child on a monitor (pulse oximeter or apnea monitor) when not directly observed
- Checking the Go Bag every day to ensure it is fully stocked
- Having the Go Bag, portable suction, and resuscitation bag and mask with child at all times
- Having batteries and adapter cords with the child when traveling (University of Wisconsin–Madison School of Nursing, et al., 2023d).
- You will also need to know how to check the amount of charge in the batteries, how to charge and recharge them, how long to charge them (University of Wisconsin–Madison School of Nursing, et al., 2023e).
- Contacting emergency medical services, fire, and police to inform them that a student with a tracheostomy is enrolled at the school.
- Encouraging EMS, fire, and police personnel to conduct a walkthrough of the school.
- Partnering with EMS, fire, and police to practice different scenarios at different times of the day with special attention being given to the location of the student, school exits, the size of the student, and whether the student uses a wheelchair (Porter, Page, & Somppi, 2013).

Ambulance Transportation:

If the student needs to be transported via ambulance it is recommended that:

- Prior to transport ensure an emergency trach change has been completed.
- Have the Go Bag stocked and ensure it travels on the ambulance with the child.
- If the child is ventilator dependent, the ventilator should always go with the child.
- Have one trained caregiver ride along in the ambulance with the child.
- Bring along power cords and batteries with equipment (University of Wisconsin–Madison School of Nursing, et al., 2023e).

Estrem, et al. (2020) recommends having a [one-page document](#) on hand to provide to Emergency Medical Services (EMS) informing them of the student's diagnosis, medications, and therapies.

Shelter-in-Place and Other Emergency Events:

In addition to an Emergency Action Plan (see [Documentation](#) section), the school nurse must collaborate with the one-on-one nurse to plan for other potential emergencies such as lockdown, extreme weather events, evacuations, and shelter-in-place events. To develop plans to address these possible emergencies the school nurse and one-on-one nurse would want to collaborate with other school staff and administrators. Considering that a student who requires a tracheostomy may also have physical and cognitive disabilities that could impact their ability to independently respond in an emergency or to follow commands, the school nurse and team will want to incorporate all the student's individual factors into the planning. The emergency preparedness plan should address the following:

1. Location of extra supplies in case of lock-down.
 - a. It is recommended that there is at least 72 hours' worth of extra supplies available at the school.
 - i. This would include a 72-hour supply of oxygen for the student who receives supplemental oxygen
2. Provision of supplies that may be needed if there is no access to electricity.
 - a. The school nurse should determine if the student's suction machine requires electricity, is battery operated, or both.
 - b. If the student uses an [oxygen concentrator](#), extra supplies of oxygen that don't require electricity (liquid oxygen or compressed oxygen) should be available at school.
3. Access to extra tracheostomy supplies in case of unplanned extended school day or shelter-in-place.
4. Additional accommodations that may be required during an emergency (i.e., extra staff to help support the student's needs).
5. Equipment, additional school staff, and/or transportation needed to assist with evacuation if the child has limited mobility and/or communication.

(Center for Inclusive Child Care, 2020; Federal Emergency Management Agency, 2009)

For more information on emergency planning see Missouri School Boards' Association's [Emergency Planning Guide for Students and Staff with Special and Functional Needs within Schools](#).

Legal Issues That May Impact This Health Condition

Section 504 Plan:

Students with a tracheostomy tube may qualify for a Section 504 Plan. Section 504 of the Rehabilitation Act of 1973 as amended through the Americans with Disabilities Amendment Act (ADAA) in 2008 ensures that students who have disabilities have access to a free and appropriate public education (FAPE) (U.S. Department of Education, 2023). FAPE provides a student with a physical or mental impairment that impacts one or more major life activities (including breathing) with related services and accommodations in the general education classroom (U.S. Department of Education, 2023; NASN, 2023). If the student does not have a 504 Plan the school nurse should determine if an evaluation is indicated (see [Student](#) section for questions to ask student and family to determine if 504 or IEP evaluation is indicated).

If the student with a tracheostomy has a 504 and one of the accommodations listed is the provision of a district hired one-on-one nurse, the school would need to get a replacement if the student's assigned one-on-one nurse were absent. If the nursing care was provided by an agency-hired one-on-one nurse, the agency would be responsible for the replacement.

Individualized Education Program (IEP):

In addition to their health condition, a child who requires a tracheostomy tube may also have another condition, such as an intellectual disability or significant developmental delay, or other health impairment that qualifies them for an IEP (U.S. Department of Education, 2018). An IEP is developed by a multidisciplinary special education team. The IEP outlines the plans for special education services for the student who has a qualifying disability that interferes with learning. The IEP plan identifies what services and accommodations are needed to support the student's education needs (NASN, 2020). Many interventions provided as part of the IEP plan are "related services", which include school nursing services and school health services (U.S. Department of Education, 2017).

Resources

Free online courses

- <https://ce.icep.wisc.edu/ehomecare-2023-2026#group-tabs-node-course-default4>
- <https://www.passy-muir.com/ceu>

Tracheostomy Emergency Situation:

- <https://vimeo.com/831926113/d0d3f2ea42?share=copy>

Children's Mercy Tracheostomy Education

- <https://www.childrensmercy.org/contentassets/2d1693fa8a2d47d7a16c97987f9f6039/trach-educational-flipchart.pdf>

Children's Hospital of Wisconsin Tracheostomy Education Resources

- <https://childrenswi.org/medical-care/tracheostomy-home-ventilator/educational-resources>

References

- American Academy of Pediatrics. (2019). *Managing chronic health needs in child care and schools*. Itasca, IL: Author.
- American Lung Association. (2024). *Oxygen therapy: Using oxygen safely*. Available at: <https://www.lung.org/lung-health-diseases/lung-procedures-and-tests/oxygen-therapy/using-oxygen-safely>
- Blakeman, T. C., Scott, J. B., Yoder, M. A., Capellari, E., & Strickland, S. L. (2022). AARC Clinical Practice Guidelines: Artificial Airway Suctioning. *Respiratory care*, 67(2), 258–271. <https://doi.org/10.4187/respcare.09548>
- Center for Inclusive Child Care. (2020). *Tip sheets. Emergency planning for children with disabilities*. Available at: <https://www.inclusivechildcare.org/sites/default/files/courses/swf/Emergency%20Planning%20for%20Children%20with%20Disabilities.pdf>
- Children’s Healthcare of Atlanta. (2017). *Tracheostomy care: Caring for a student with a trach tube*. Available at: https://www.choa.org/~media/files/Childrens/medical-professionals/nursing-resources/school-trach-care_cne-final.pdf
- Children’s Healthcare of Atlanta. (2019). *Chapter 6 Special health procedures in a school setting*. Available at: <https://www.choa.org/~media/Files/Childrens/medical-professionals/nursing-resources/ch-6-special-health-procedures-in-a-school-setting.pdf?la=en&hash=646E7B037D0A449ADBBFB94D7B719AC81757334B>
- Erwin, K., Clark, S., & Mercer, S.E. (2014). Providing health services for children with special health care needs on out-of-state field trips. *NASN School Nurse*, 29(2), 84-8. doi: 10.1177/1942602X13517005
- Estrem, B., Wall, J., Paitich, L., & Maynard, R. (2020). The ventilator-dependent child: What every home care nurse needs to know. *Home Healthcare Now*, 38(2), 66–74. <https://doi.org/10.1097/NHH.0000000000000853>
- Federal Emergency Management Agency. (2009). *Evacuating the special needs population*. Available at: <https://training.fema.gov/programs/emischool/el361/toolkit/assets/evacuatingspecialneedspopulation.pdf>
- Fox, J. L. (2024). The child who is hospitalized. In Hockenberry, Duffy, & Gibbs (Eds). *Wong’s nursing care of infants and children* (12th Ed., pp. 729-732).
- Galemore & Sheetz. (2015). IEP, IHP, and section 504 primer for new school nurses. *NASN School Nurse*, (Print), 30(2), 85–88. <https://doi.org/10.1177/1942602X14565462>
- Kennedy Krieger Institute (2020). *Tracheostomy*. Available at: <https://www.kennedykrieger.org/sites/default/files/library/Trach%20factsheet%202020.pdf>
- Llorens, A., McKee, S., & Dempsey, A.G.). (2020). In A.G. Dempsey (Ed.). *Pediatric health conditions in schools*. (pp. 26-27). New York, NY: Oxford Press.
- Missouri Department of Elementary and Secondary Education & Missouri Department of Health and Senior Services. (2014). *Manual for school health programs*. Available at: <https://health.mo.gov/living/families/schoolhealth/pdf/ManualForSchoolHealth.pdf>
- Mitchell, R. B., Hussey, H. M., Setzen, G., Jacobs, I. N., Nussenbaum, B., Dawson, C., Brown, C. A., 3rd, Brandt, C., Deakins, K., Hartnick, C., & Merati, A. (2013). Clinical consensus

- statement: tracheostomy care. *Otolaryngology--head and neck surgery : official journal of American Academy of Otolaryngology-Head and Neck Surgery*, 148(1), 6–20.
<https://doi.org/10.1177/0194599812460376>
- National Association of School Nurses. (2019). *School-sponsored trips -The role of the school nurse* (Position Statement). Silver Spring, MD: Author.
- National Association of School Nurses. (2020). *Understanding student health and education plans*. Available at: <https://learn.nasn.org/courses/25340>
- National Association of School Nurses. (2021). *Medication administration clinical practice guidelines in the school*. Author. Available at:
<https://learn.nasn.org/courses/33787/documents/50343>
- National Association of School Nurses. (2023). *IDEIA and Section 504 Teams - The school nurse as an essential team member* (Position Statement). Author.
- National Council of State Boards of Nursing & American Nurses Association. (2019, April 4). *National guidelines for nursing delegation*. Available at:
<https://www.nursingworld.org/~4962ca/globalassets/practiceandpolicy/nursing-excellence/ana-position-statements/nursing-practice/ana-ncsbn-joint-statement-on-delegation.pdf>
- Nationwide Children's. (2017, November). *Tracheostomy: How to protect the child with a trach tube*. Available at: <https://www.nationwidechildrens.org/family-resources-education/health-wellness-and-safety-resources/helping-hands/tracheostomy-how-to-protect-the-child-with-a-trach-tube>
- Porter, S. M., Page, D., Engholm, H., & Somppi, C. (2019). Students supported by medical technology. In J. Selekman, Shannon, R.A., Yonkaitis, C.F. (Eds.). *School nursing, a comprehensive text* (3rd ed., pp. 721-740). Philadelphia PA.: F. A. Davis Co.
- Porter, S. M., Page, D. R., & Somppi, C. (2013). Emergency preparedness in the school setting for the child assisted by medical technology. Tracheostomies, ventilators, and oxygen. *NASN School Nurse* (Print), 28(6), 298–305. <https://doi.org/10.1177/1942602X13507282>
- Selekman, J. & Ness, M. (2019). Students with chronic conditions. In J. Selekman, Shannon, R.A., Yonkaitis, C.F. (Eds.). *School nursing, a comprehensive text* (3rd ed., pp. 480-499). Philadelphia PA.: F. A. Davis Co.
- Shannon, R. A., & Minchella, L. (2015). Students requiring personal nursing care in school: nursing care models and a checklist for school nurses. *NASN School Nurse* (Print), 30(2), 76–80. <https://doi.org/10.1177/1942602X15569781>
- Sterni, L. M., Collaco, J. M., Baker, C. D., Carroll, J. L., Sharma, G. D., Brozek, J. L., FINDER, J. D., Ackerman, V. L., Arens, R., Broughs, D. S., Carter, J., Daigle, K. L., Dougherty, J., Gozal, D., Kevill, K., Kravitz, R. M., Kriseman, T., MacLusky, I., Rivera-Spoljaric, K., Tori, A. J., ... ATS Pediatric Chronic Home Ventilation Workgroup (2016). An Official American Thoracic Society clinical practice guideline: Pediatric chronic home invasive ventilation. *American Journal of Respiratory and Critical Care Medicine*, 193(8), e16–e35. <https://doi.org/10.1164/rccm.201602-0276ST>
- University of Wisconsin–Madison School of Nursing, UW Health Kids, and Children's Hospital of Wisconsin. (2023a, October 1). *eHome care 2023-2026. Module 1: Pediatric airway and tracheostomies*. Available at: <https://ce.icep.wisc.edu/ehomecare-2023-2026#group-tabs-node-course-default1>

- University of Wisconsin–Madison School of Nursing, UW Health Kids, and Children's Hospital of Wisconsin. (2023b, October 1). *eHome care 2023-2026. Module 2: Oxygenation and ventilation*. Available at: <https://ce.icep.wisc.edu/ehomecare-2023-2026#group-tabs-node-course-default1>
- University of Wisconsin–Madison School of Nursing, UW Health Kids, and Children's Hospital of Wisconsin. (2023c, October 1). *eHome care 2023-2026. Module 3: Suctioning and bronchial hygiene*. Available at: <https://ce.icep.wisc.edu/ehomecare-2023-2026#group-tabs-node-course-default1>
- University of Wisconsin–Madison School of Nursing, UW Health Kids, and Children's Hospital of Wisconsin. (2023d, October 1). *eHome care 2023-2026. Module 4: Tracheostomy care and tube changes*. Available at: <https://ce.icep.wisc.edu/ehomecare-2023-2026#group-tabs-node-course-default1>
- University of Wisconsin–Madison School of Nursing, UW Health Kids, and Children's Hospital of Wisconsin. (2023e, October 1). *eHome care 2023-2026. Module 5: Emergency preparedness*. Available at: <https://ce.icep.wisc.edu/ehomecare-2023-2026#group-tabs-node-course-default1>
- U.S. Department of Education. (2017, May 2). *Sec. 300.34 related services*. Available at: <https://sites.ed.gov/idea/regs/b/a/300.34>
- U.S. Department of Education. (2018, May 25). *Sec. 300.8 Child with a disability*. Available at: <https://sites.ed.gov/idea/regs/b/a/300.8>
- U.S. Department of Education. (2023). *Frequently asked questions about Section 504 and the education of children with disabilities*. Available at: <https://www2.ed.gov/about/offices/list/ocr/504faq.html>
- U.S. Department of Health and Human Services & U.S. Department of Education. (2008). *Joint guidance on the application of the Family Educational Rights and Privacy Act (FERPA) the Health Insurance Portability and Accountability Act of 1996 (HIPAA) to student health records*. Available at: <https://studentprivacy.ed.gov/resources/joint-guidance-application-ferpa-and-hipaa-student-health-records>
- Wisconsin Department of Public Instruction. (2011). *1:1 Nursing services for students with special health care needs*. Available at: <https://dpi.wi.gov/sites/default/files/imce/sspw/pdf/snnursingservices.pdf>
- Wisconsin Department of Public Instruction. (2019). *Meeting student health needs while on field trips. Tool kit for Wisconsin schools*. Available at: https://dpi.wi.gov/sites/default/files/imce/sspw/pdf/Meeting_Student_Health_Needs_While_on_Field_Trips_Tool_Kit.pdf

Reviewers:

Renee Falkner, BSN, RN
School Nurse Supervision Specialist | Therapylog

Katherine Park, DNP, RN, NCSN
*Nationally Certified School Nurse, Pierremont Elementary
 Adjunct Professor, Maryville University School of Nursing*