

# Tracheoesophageal Fistula

BIRTH DEFECT RESEARCH FOR CHILDREN



## What is TEF?

Tracheoesophageal Fistula (TEF)



# TEF



## What is TEF?

During the first month of pregnancy, the trachea (windpipe) and the esophagus (foodpipe) undergo a division from one tube into separate tubes. This happens during the last week of the first month of pregnancy when many women are unaware of their pregnancies. Problems can occur during this division that can lead to connections between the trachea and the esophagus, as well as a lack of connection between the esophagus and the stomach.

There are four types of Tracheoesophageal abnormalities.

**Type B: Esophageal Atresia with Tracheoesophageal Fistula.** The upper segment of the esophagus forms a fistula (connection) with the trachea. The lower segment leads from the stomach to a blind pouch.

**Type C: Esophageal Atresia with Tracheoesophageal Fistula.** The upper segment of the esophagus ends in a blind pouch, whereas the lower segment attaches from the trachea to the stomach.

**Type D: Esophageal Atresia with Tracheoesophageal Fistula.** The upper segment of the esophagus forms a fistula with the trachea, similar to Type B. The lower segment, however, connects from the trachea to the stomach.

**Type H: Tracheoesophageal Fistula.** Unlike the previous types, the esophagus does connect from the mouth to the stomach. A connection is made, however, between the trachea and the esophagus.

**Note:** In normal Tracheoesophageal function, the trachea leads from the mouth to the lungs and the esophagus leads from the mouth to the stomach. They are two independent pipes that run parallel to one another.

## How many children are born with TEF?

One out of every 75,000 children is born with TEF. The chance of being born with TEF is equal for boys and girls.

## What causes TEF?

This birth defect is multi-factorial in most cases. This means that a genetic predisposition is triggered by something in the prenatal environment. Potential causes have included teratogenic exposure (e.g. drugs and chemicals), chromosomal defects, and genetic factors.

## Can TEF be prevented?

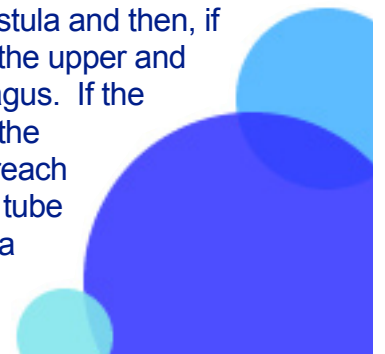
Since environmental exposures to certain drugs and chemicals are suspected of having an adverse effect on the developing fetus, it is important to avoid as many of these exposures as possible before and during pregnancy.

## How is TEF diagnosed?

The major diagnostic criteria include repeated bouts of pneumonia and gastric dilation. Other possible criteria may include a specific cough, called the “TEF cough”, and repeated respiratory problems and respiratory infections.

## Treating a child who has TEF

**Surgery:** Many of these problems associated with TEF are life threatening and require immediate action by the child’s health care providers. This includes surgery that is performed under general anesthesia to close off the fistula and then, if necessary, to surgically join the upper and lower portions of the esophagus. If the upper and lower portions of the esophagus are too short to reach the stomach, a gastrostomy tube may need to be inserted on a temporary basis to assist in feeding. Both before and



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after surgery, a baby with TEF will require care in a neonatal intensive care unit. This allows the child to have proper ventilation and oxygen and also access to a chest tube, if needed, to drain fluids. The hospital stay after surgery varies depending on the severity of the case.

**Risks:** The use of anesthesia may cause breathing problems. Also, as with all surgeries, there is a risk of bleeding and infection.

**Cost:** The cost of any surgery varies significantly between surgeons, medical facilities, and regions of the country. Patients who are younger, sicker, or need more extensive surgery will require more intensive and expensive treatment. Insurance coverage for surgery expenses depends on many factors and should be explored for each individual instance. Since the surgery is life saving, it should be covered by most policies

**Prognosis:** The prognosis for TEF is excellent if the diagnosis is made before chronic lung disease or disability occurs.

Fact Sheet by:

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