



**RAMA**  
**UNIVERSITY**

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**FACULTY OF NURSING**

# HERNIA

***Nandni Shivhare  
Nursing Tutor  
R.C.N***

## **Definition-**

**Hernia is the protrusion of intestine through a weakness in the abdominal muscles.**

**Or**

**Hernia is the protrusion or projection of an organ or a part of an organ through the abnormal opening in the wall of the cavity that contains it.**

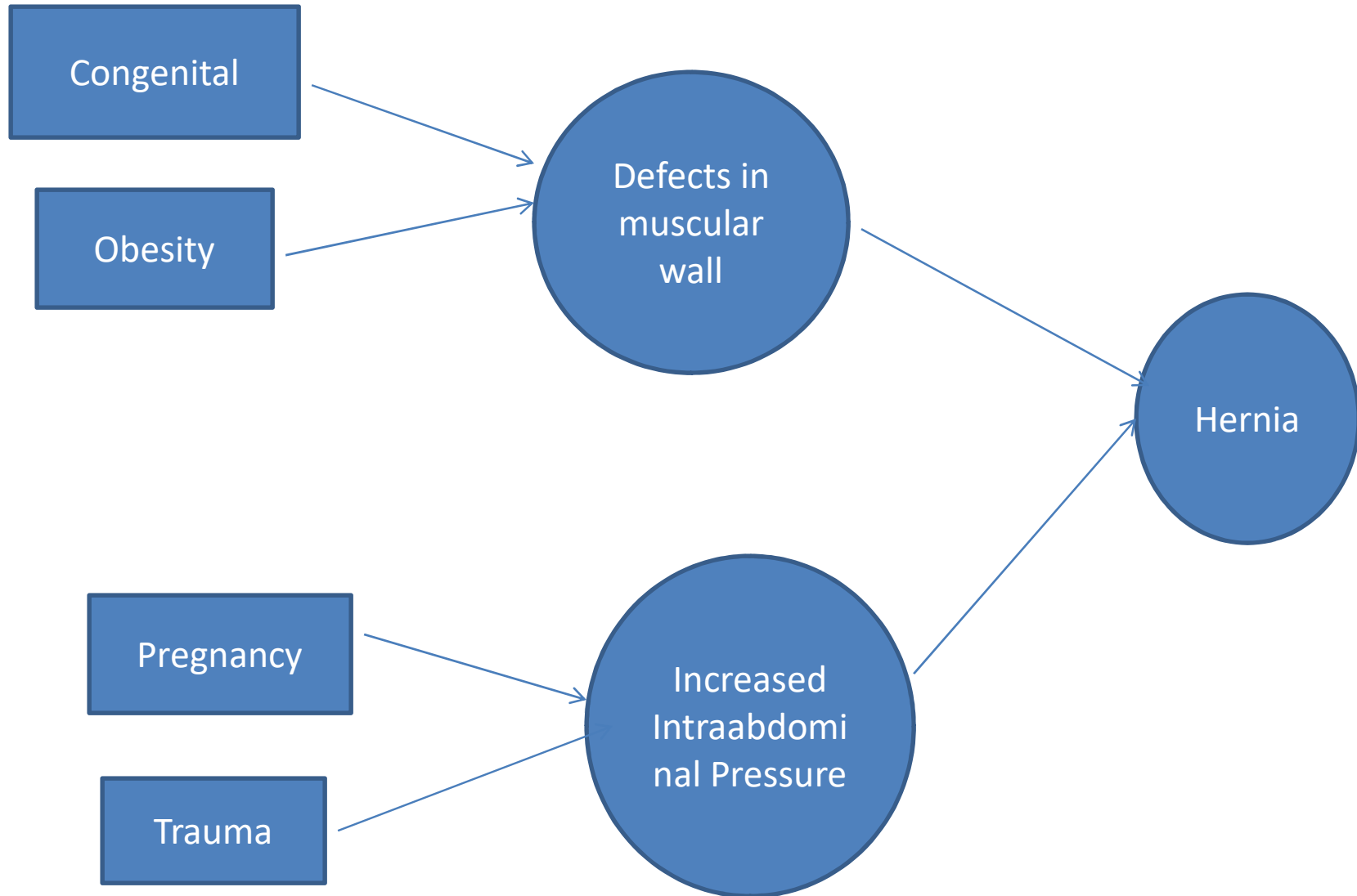
## **Causes-**

- **It may be congenital or acquired**
- **Failure of certain normal opening to close during development**
- **Weakness due to debilitating illness and injury**
- **Prolonged distension due to obesity**
- **Intraabdominal pressure due to straining and coughing**

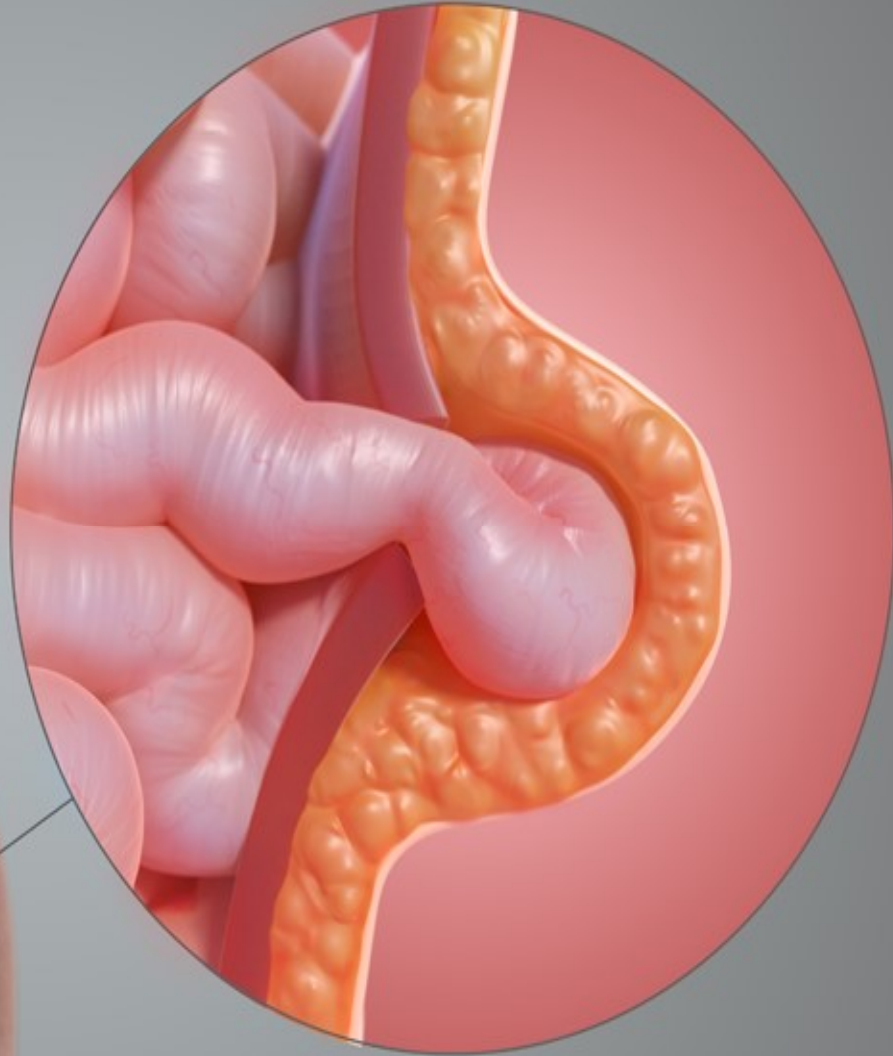
# Types-

1. **Gastroschisis**- It is a congenital anomaly characterized by a defect in the anterior abdominal wall through which abdominal contents freely protrude.
2. **Exomphalos/Omphalocele**- It is another congenital birth defect that involves the umbilical cord itself and the organs enclosed in the visceral peritoneum.
  - With omphalocele the defect is usually much larger than gastroschisis.
  - **Inguinal hernia**
  - **Umbilical hernia**
  - **Hiatus hernia**

# PATHOPHYSIOLOGY—



# INGUINAL HERNIA



## **Definition-**

**A hernia occurs when a part of the intestine pushes through a weakness in the belly (abdominal) muscles. A soft bulge shows up under the skin where the hernia is. A hernia in the groin area is called an inguinal hernia.**



## **INCIDENCE-**

**It is most common seen in infants and children. It occurs in groin region, it may be unilateral or bilateral, more frequent in boys (90%) than girls (10%).**

**It is more common in premature than term infants**

## **Causes and Risk Factors of Inguinal Hernia**

- ▶ *Increased stress in the abdomen.*
- ▶ *An old weak spot present in the abdominal wall.*
- ▶ *Straining at the time of urination and bowel movements.*
- ▶ *Heavy lifting.*
- ▶ *Fluid in the abdomen or ascites.*
- ▶ *Pregnancy.*
- ▶ *Overweight.*
- ▶ *Chronic sneezing and coughing.*
- ▶ *Family history.*
- ▶ *Ageing.*
- ▶ *Premature birth.*

For More Information:  
Visit: [www.epainassist.com](http://www.epainassist.com)

**Inguinal  
Hernia**



## **CLINICAL FEATURE-**

- Vomiting that contains bile.
- Cramping pain.
- Abdominal distention.
- Fever.
- Infants become irritable and restless.

# DIAGNOSTIC EVALUATION-

- ❖ History collection
- ❖ Physical examination
- ❖ Abdominal X-ray
- ❖ Abdominal ultrasound

## **MANAGEMENT-**

Treatment of hernia depend upon child's age, overall health and type of hernia whether it is reducible or irreducible.

There are mainly two types of surgical management-

1. Open inguinal hernia (Herniorrhaphy, Hernioplasty)
2. Laparoscopy repair



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## **Definition-**

**An umbilical hernia is an abnormal bulge that can be seen or felt over the belly button (the Umbilicus). An umbilical hernia develops when a portion of the intestine, along with fat or fluid, bulges through the muscle of the abdominal wall.**

**OR**

**A condition in which soft tissue bulges through weak point in the abdominal muscles**

## **INCIDENCE-**

- It occurs in about 10% of all children,
- more often in girls than boys.
- It frequently occurs in premature infants.

## **Etiology –**

- Being overweight
- Frequent pregnancies
- Stomach surgery
- Having a persistent, heavy cough
- Multiple gestation pregnancies ( having twins, triplets )



## **CLINICAL FEATURES-**

- **Bulge or swelling in the belly button area.**
- **Pain in the umbilicus**
- **Pressure sensation**
- **Nausea**
- **Vomiting**

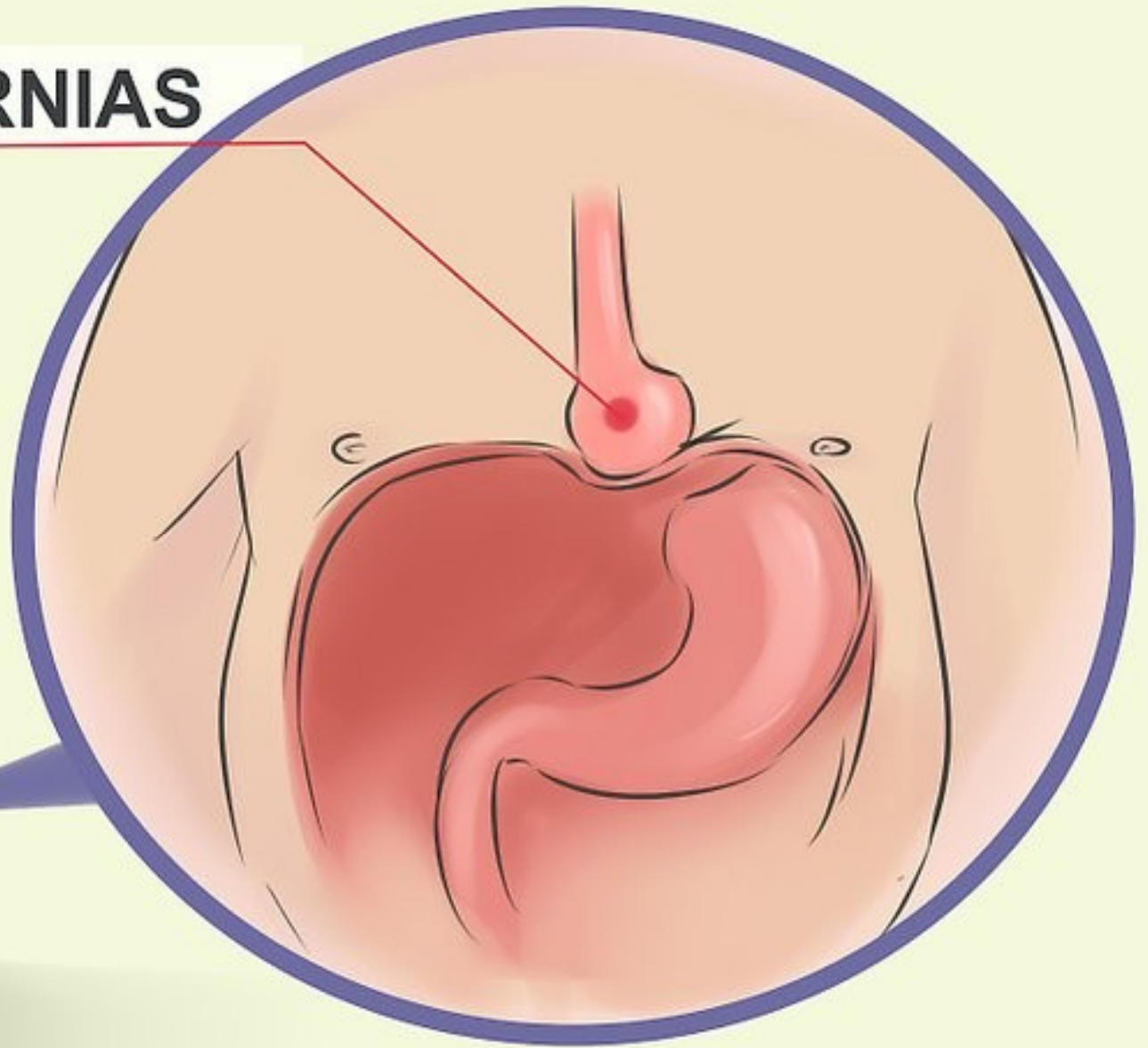
# **DIAGNOSTIC EVALUATION-**

- **History collection**
- **Physical examination**
- **Abdominal X-ray**
- **Abdominal USG**

## **MANAGEMENT-**

- By 1 year of age, many umbilical hernia will have closed on their own without needing surgery.
- Nearly all umbilical hernia will have closed without surgery by 5 year of age.

# HIATAL HERNIAS



## **Definition -**

**A hiatal hernia is a condition that causes part of your child's stomach to bulge through the hiatus (small opening) in his diaphragm. This part of the stomach may move up and down, or it may get trapped above the diaphragm.**

**OR**

**Hiatus hernia or partial thoracic stomach is the herniation of cardiac end of the stomach through the esophageal hiatus of the diaphragm.**

## **Risk factor-**

- **Age**
- **Increased intra-abdominal pressure (eg. Obesity, pregnancy, coughing, heavy lifting)**

## **Clinical features-**

- **Hemetemasis**
- **Persistent vomiting**
- **Dehydration**
- **Frequent aspiration**
- **Failure to thrive**
- **Anemia**

## **Diagnostic evaluation-**

- **History collection**
- **Physical examination**
- **Chest X-ray**
- **Barium meal study**
- **Endoscopy**



# **Management-**

## **Medical management-**

- Antacids
- H<sub>2</sub> receptor antagonists e.g. Cimetidine
- Proton pump inhibitors e.g. Omeprazole
- Prokinetic agents e.g. Metoclopramide

## **Surgical management-**

The surgery of hiatal hernia is Nissen type of Fundoplication.

- **Fundoplication-** A Nissen Fundoplication is the most commonly performed surgery for a hiatal hernia. This procedure uses laparoscopic repair or keyhole surgery. The surgeon may also tighten the stomach opening to prevent the hernia from coming back. Laparoscopic repair has some advantages over other types of hiatal hernia surgery.

# **NURSING MANAGEMENT OF HERNIA-**

## **Pre-operative care-**

- **In order to prevent dehydration.**
- **All preoperative routine care is given like-giving bath, putting operation theater clothes, placing identification band in wrist, collecting all reports of lab investigation and preparing patient file.**
- **Pre anaesthesia medication is administered.**

- **Post- operative –**

- **After the child comes from OT, receive him in comfortable operation bed.**
- **Monitor vital signs.**
- **Continue giving IV fluids.**
- **Observe the incision site from bleeding.**
- **The child is discharged from the hospital after he starts taking & retaining oral fluids.**
- **Parents must be instructed to keep incision site clean & dry.**

**THANK YOU**