



Managing nausea and vomiting

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Introduction

Nausea and vomiting are symptoms of many different conditions. Nausea is an urge to vomit and does not always lead to vomiting. Vomiting occurs when the stomach contents are forcefully expelled through the mouth.

In adults, some of the most common causes of nausea and/or vomiting include:

- Gastrointestinal problems (such as gastro-oesophageal reflux disease [GORD])
- Food poisoning
- Medications (such as antidepressants, chemotherapy, antibiotics, oral contraceptives)
- Migraine
- Alcohol (overindulgence)
- Pregnancy
- Motion sickness

The most common cause of nausea and vomiting in children is gastroenteritis (usually viral in origin). Food poisoning, motion sickness, overeating and illnesses that cause a high fever are also common causes of vomiting in children.

In most instances, vomiting is benign. However, in some instances, nausea and vomiting may indicate a serious underlying condition, such as kidney or liver disorders, heart attack, head injury, brain tumours and cancer. Serious diseases or infections such as appendicitis, meningitis and encephalitis can also result in nausea and vomiting.

For the patient to be managed effectively, the following should be asked/determined:

- The **age** of the patient (infant, child, adult)
Very young children and the elderly are more at risk of dehydration from vomiting. Young children are not always able to recognise the feeling of nausea and may complain of something else, such as stomach ache.
- Is the patient **pregnant**?
Pregnancy should be considered in any woman of child-bearing age who is experiencing nausea and vomiting.
- How **long** has the patient been vomiting?
If the vomiting has continued for 2 days or more in children over 2 years of age and adults, the patient should be referred to the doctor. Vomiting that occurs for more than 24 hours in an infant or child, or any episode of forceful vomiting in an infant regardless of duration, should be referred to the doctor. Infants refusing to feed for more than a few hours should also be referred for evaluation.
- Does the patient have any other **symptoms**, such as abdominal pain, diarrhoea, constipation, fever?
Gastroenteritis is often associated with vomiting and diarrhoea. In infants and young children, rotavirus is a common cause of gastroenteritis and is highly infectious. Migraine is also a potential cause of nausea and vomiting, as are dizziness or vertigo (which may be because of an inner ear disease).
Warning signs that are a cause for concern and indicate referral to a doctor include:
 - Headache, stiff neck, decreased alertness or confusion
 - Abdominal tenderness when touched
 - Swollen abdomen
 - Signs and symptoms of dehydration (i.e., dry mouth, thirst, decreased urine or dark yellow urine, weakness, confusion, and tiredness). Children may present with sunken eyes and a rapid pulse, and infants may also present with a sunken fontanelle (soft spot at the top of an infant's head).
- Has the patient ingested **alcohol**?
Ingestion of large quantities of alcohol can cause nausea and vomiting, especially the following morning.

- Is the patient taking any prescribed or over-the-counter (OTC) **medications**?

Certain prescription medications, for example, antibiotics, hormone replacements, opioid analgesics and certain OTC medications, such as aspirin or nonsteroidal anti-inflammatory drugs (NSAIDs), may cause nausea or vomiting as a side-effect. Patients taking certain chemotherapy medication for the treatment of cancer may also experience severe nausea and vomiting. In cases where stopping the medication is not an option, it may be recommended that the patient see a doctor.

Management of nausea and vomiting

There are non-pharmaceutical measures that may be recommended to the patient to help relieve nausea, such as:

- Drinking cold liquids, and taking small sips
- Eating light, bland food, such as dry crackers
- Avoiding any activity after eating

Self-treatment measures for vomiting include:

- Ensuring hydration by drinking plenty of clear fluids, but only taking small sips at a time
- Avoiding solid foods until vomiting stops
- Drinking oral rehydration solution (ORS) to replace electrolytes
- Resting

Medications (antiemetics) are available OTC to prevent or relieve nausea and vomiting (Table I). Antiemetics, such as cyclizine, cinnarizine and doxylamine, are antihistamines. Therefore, it is important to counsel the patient about the possibility of drowsiness

Table I: Antiemetics available over-the-counter

Antiemetic	Dose and special notes
Cyclizine (e.g., Valoid®, Aculoid®, Adco-Cyclizine®, Medazine®, Covamet®, Triazine®)	<p>Tablets (50 mg) Adults and children above 12 years: 50 mg, 3 times daily, as needed Children 6–12 years: 25 mg up to 3 times daily, as needed</p> <p>Syrup (12.5 mg/5 ml) Children 2–5 years: 12.5 mg, 2–3 times daily Children 6–12 years: 25 mg (10 ml) up to 3 times daily</p> <p>Suppositories (50 mg and 100 mg) Adults and children above 12 years: 100 mg rectally, 3 times daily, as needed Children 6–12 years: 50 mg rectally, 3 times daily, as needed Children under 6 years: Contraindicated</p> <p>For prevention of motion sickness in adults: 50 mg orally, 20–30 minutes before departure, and repeat 4–6 hours if necessary</p> <p>Special notes</p> <ul style="list-style-type: none"> • Cyclizine suppositories are contraindicated in children under 6 years of age • It is important to caution patients that drowsiness is a common side-effect, which may affect their ability to concentrate while driving or performing any tasks that require alertness • Other common side-effects include dry mouth, blurred vision, urinary retention and constipation
Cinnarizine (e.g., Stugeron®, Sandoz Cinnarizine®)	<p>Tablets (25 mg) For prevention of motion sickness in adults: 25 mg to be taken 2 hours before departure, and then 12.5–25 mg every 8 hours during the journey, as needed</p> <p>Children: 5–7 years: 6.25 mg, 3 times daily, as needed 8–12 years: 12.5 mg, 3 times daily, as needed</p> <p>Special notes</p> <ul style="list-style-type: none"> • It is important to caution patients that drowsiness is a common side-effect, which may affect their ability to concentrate while driving or performing any tasks that require alertness
Dicyclomine, doxylamine, pyridoxine (e.g. Asic®)	<p>Tablets (combination) For management of nausea and vomiting in pregnancy: Two tablets orally before bedtime, and one tablet in the morning before rising, as needed</p> <p>Special notes</p> <ul style="list-style-type: none"> • It is important to caution patients that drowsiness is a common side-effect, which may affect their ability to concentrate while driving or performing any tasks that require alertness.
Sucrose/phosphoric acid (e.g., Emetrol®, Emex®)	<p>Syrup Adults: Use undiluted as per individual package inserts. May be used for nausea in pregnancy and nausea associated with motion sickness Infants and children: Use as per individual package inserts</p>

Always refer to individual package inserts for specific manufacturer's prescribing information

that may affect their daily activities. The appropriate choice of antiemetic depends on the cause of nausea and vomiting. In some cases, such as vomiting associated with chemotherapy, the patient will need to be referred to the doctor for the appropriate antiemetic.

Vomiting can be an important way for the body to eliminate toxins that may potentially be harmful, but it is important to know when to refer the patient.

Refer the patient to the doctor:

- If the patient is vomiting blood
- If the patient has chronic (long-term) vomiting
- If dehydration is present
- If there is vomiting after a known injury (e.g. head injury) or infection
- If home treatment measures are not helping
- If the patient is experiencing any of the “warning signs” for immediate referral (see above)

Conclusion

Patients often present in the pharmacy looking for assistance in managing nausea and vomiting. To effectively manage the

patient, try to determine any possible underlying causes by asking relevant questions, such as, the possibility of pregnancy, the duration of nausea or vomiting, and any other symptom they may be experiencing. Know when to refer the patient to a doctor for management.

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