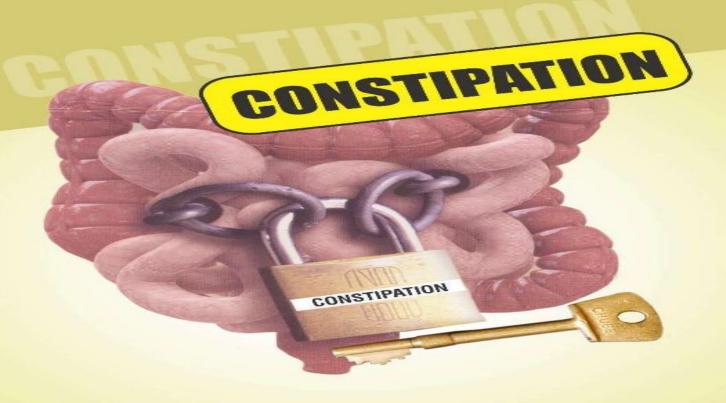
#### **Practical Clinical Pharmacy Lab 4**

# Constipation

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#### Causes o Cure

Naturally and Permanently

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Constipation is a problem of significant magnitude. It
can have a devastating impact on a patient's personal
life. There are many causes of constipation. Among
them are dietary factors such as decreased fiber and
low fluid intake, decreased activity, lack of privacy for
defecation, pharmacologic agents, physiologic
problems or metabolic disorders.

#### Introduction

- Inadequate water intake
- Inadequate fiber in the diet
- traveling
- Inadequate activity or exercise or immobility
- Eating large amounts of dairy products
- Stress
- Resisting the urge to have a bowel movement, which is sometimes the result of pain from <a href="hemorrhoids">hemorrhoids</a>
- Overuse of laxatives (stool softeners) which, over time, weaken the bowel muscles

- Hypothyroidism
- Neurological conditions such as <u>Parkinson's disease</u> or multiple sclerosis
- Antacid medicines containing calcium or aluminum
- Medicines (especially strong pain medicines, such as narcotics, antidepressants, or iron pills)
- Depression
- Irritable bowel syndrome
- Pregnancy
- Colon cancer

## **What Causes Constipation?**

#### Details of bowel habit

- Frequency and nature of bowel actions now
- When was the last bowel movement?
- What is the usual bowel habit?
- When did the problem start?

#### Is there a previous history?

- Associated symptoms
- Abdominal pain/discomfort/bloatin g/distension
- Nausea and vomiting
- Blood in the stool

# What you need to know

#### Diet

- Any recent change in diet?
- Is the usual diet rich in fibre?

#### Medication

- Present medication
- Any recent change in medication
- Previous use of laxatives

## What you need to know

• In fact, the normal range of bowel movement may vary from three movements in 1 day to three in 1 week.

 Therefore an important health education role for the pharmacist is in reassuring patients that their frequency of bowel movement is normal. The determination of any change in bowel habit is essential.

A sudden change, which has lasted for 2 weeks or longer,
 would be an indication for referral

#### **Bowel habit**

- Infrequent bowel movements and/or difficulty having bowel movements
- Swollen abdomen or abdominal pain
- Pain
- Vomiting



# **Associated symptoms**

- Change in bowel habit of 2 weeks or longer
- Presence of abdominal pain, vomiting, bloating
- Blood in stools
- Prescribed medication suspected of causing symptoms
- Failure of OTC medication

#### When to refer

- Constipation that is not caused by serious pathology will usually respond to simple measures, which can be recommended by the pharmacist:
  - increasing the amount of dietary fibre
  - maintaining fluid consumption
  - doing regular exercise
  - <u>in the short term</u>, a laxative may be recommended to ease the immediate problem

## **Management**

#### Fiber

Food sources of fiber include whole wheat, bran, fresh or dried fruits, and vegetables







 also called fiber laxatives, work by increasing the amount of water in the stool, making it softer and easier to pass.
 These are generally the preferred laxatives for most ages.

 Commonly prescribed bulk-forming laxatives include ispaghula, psyllium husk, methylcellulose and sterculia.
 When taking this type of laxative, you must drink plenty of fluids.

## 1. Bulk-forming laxatives

- <u>SIDE EFFECTS</u>: Bloating, gas, or stomach cramps may occur. These effects usually decrease with smaller doses.
- This laxative may cause decreased absorption of other medications. Take all other medications at least 2 hours before or after taking a bulkforming laxative.

## 1. Bulk-forming laxatives

• Stimulant laxatives induce bowel movements by increasing the contraction of muscles in the intestines, and are effective when used on a short-term basis. Examples of stimulant laxatives include aloe, cascara, senna compounds, bisacodyl, and castor oil.

- Bisacodyl (Dulcolax, Correctol) is available OTC in oral pill form and as a suppository or enema. The oral form takes 6 to 10 hours to work.
- Senna, cascara ,these laxatives are converted by the bacteria in the colon into active compounds which then stimulate the contraction of colon muscles. After taking these products orally, bowel movements occur after 8 to 24 hours.

Castor oil is a liquid stimulant laxative that works in the small intestine. It causes the accumulation of fluid in the small intestine and promotes evacuation of the bowels. Castor oil should not be taken with food, although juice or other flavored liquids can help hide its unpleasant taste. This laxative works rather quickly, usually within 2 to 6 hours. Castor oil is usually used to cleanse the colon for surgery.

 Side effects include severe cramps, excess fluid loss and dehydration, blood electrolyte disturbance such as low levels of blood potassium (hypokalemia), and malnutrition with chronic use.

- in general they all work by increasing the amount of water that is secreted within the intestines. This effect helps to produce softer, easier-to-pass stools. Some osmotic laxatives are available over the counter, while others require a prescription.
- Most common side effects that have been associated with osmotic laxatives:
- Nausea bloating cramping flatulence diarrhea

### **Osmotic laxatives**

- It may take 1–2 days to work.
- One or two glasses of fluid should be taken with the daily dose.
- Glycerin (suppositories) belongs to a class of drugs known as hyperosmotic laxatives. It works by drawing water into the intestines. This effect usually results in a bowel movement within 15 to 60 minutes.

#### **Osmotic laxatives**

 Side effects: Rectal irritation/burning, abdominal discomfort/cramps, or small amounts of mucus in the stool may occur.



#### **Osmotic laxatives**