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Course Name	**: D. Pharm**
Year	**: First Year**
Subject Name	**: Pharmaceutical Chemistry**
Topic Name	**: Antacids**

Ch – 6.1

ANTACIDS

Definition: Antacids are medications that neutralize stomach acid to relieve symptoms of heartburn, acid reflux, and indigestion.

Reason of Acidity: Excessive production of stomach acid or gastroesophageal reflux disease (GERD) can lead to acidity, causing symptoms like heartburn and indigestion.

Classification:

1. **Systemic Antacids:** These are absorbed into the bloodstream and include drugs like **e.g.** sodium bicarbonate.
2. **Non-systemic Antacids:** These work locally in the stomach and include drugs like **e.g.** calcium carbonate, magnesium hydroxide, and aluminum hydroxide.

Mode of Action: Antacids work by neutralizing stomach acid through various chemical reactions. They raise the pH of gastric contents, reducing acidity and providing relief from symptoms.

Uses:

1. Relief of heartburn
2. Relief of acid indigestion
3. Treatment of gastroesophageal reflux disease (GERD)
4. Management of peptic ulcers

Side Effects:

1. **Constipation:** Antacids containing aluminum or calcium can cause constipation.
2. **Diarrhea:** Antacids containing magnesium can have a laxative effect and cause diarrhea.
3. **Alkalosis:** Excessive use of antacids can lead to metabolic alkalosis, a condition characterized by elevated blood pH levels.
4. **Electrolyte Imbalance:** Long-term use of antacids may disrupt electrolyte balance, leading to conditions like hypokalemia or hypercalcemia.

Dosage Forms: Antacids are available in various dosage forms, including:

1. Tablets
2. Chewable tablets
3. Suspension or liquid form
4. Effervescent tablets
5. Powder for oral suspension

Note: It's essential to use antacids as directed by a healthcare professional and to avoid overuse or prolonged use without medical supervision. Persistent symptoms should be evaluated by a healthcare provider to rule out underlying conditions.