

First Semester Basics of Surgery

INFLAMMATION ACUTE AND CHRONIC



Sawa University

College of health and medical techniques

Department of Anesthesia

Stage: Second

جامعة ساوة الاهلية

كلية التقنيات الصحية والطبية

قسم تقنيات التخدير

المرحلة: الثانية

محاضرة رقم: 2

Lecture No. 2

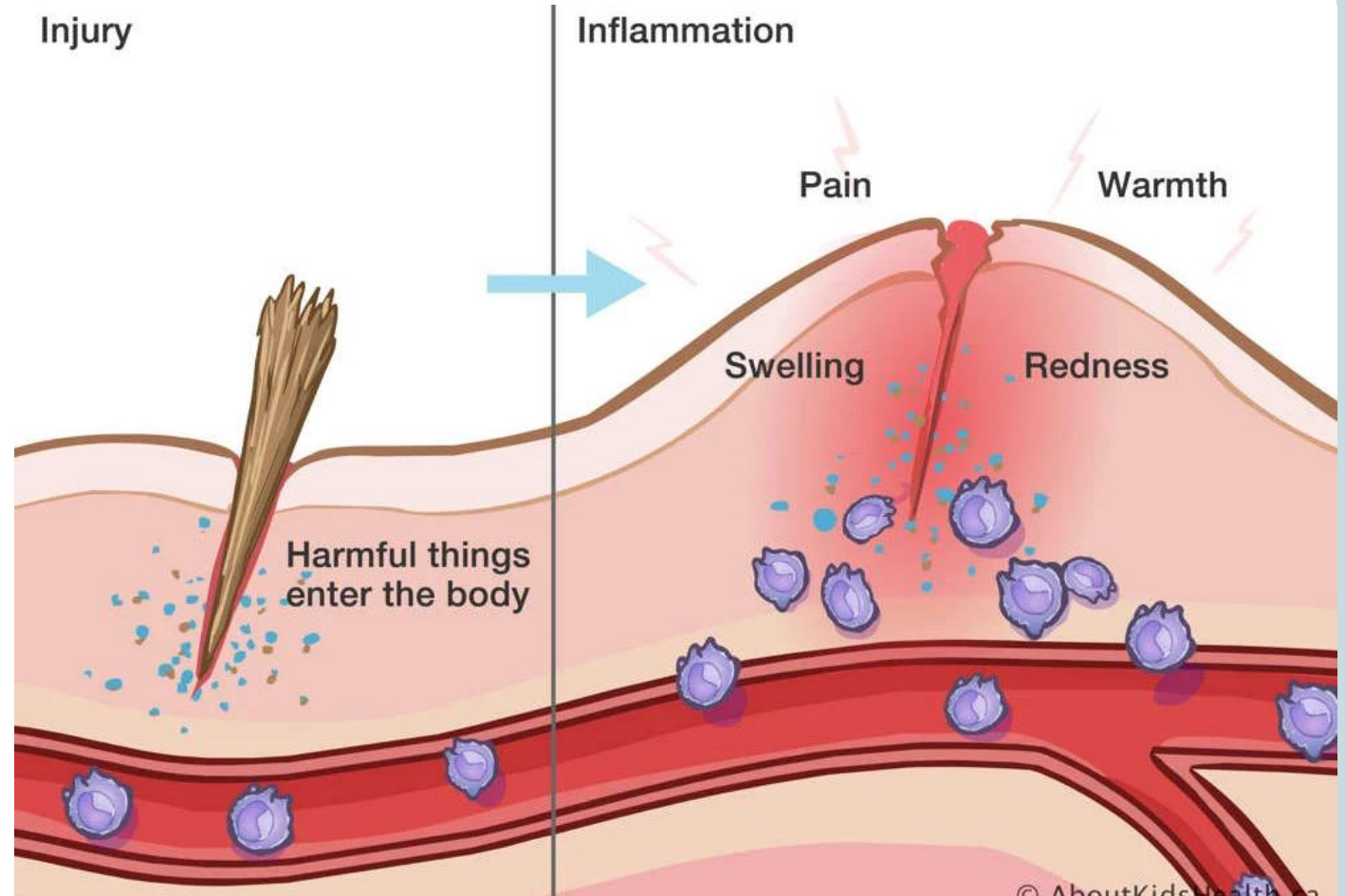
نظري

Theoretical

استاذ المادة : م.م. رباب سمير كاظم

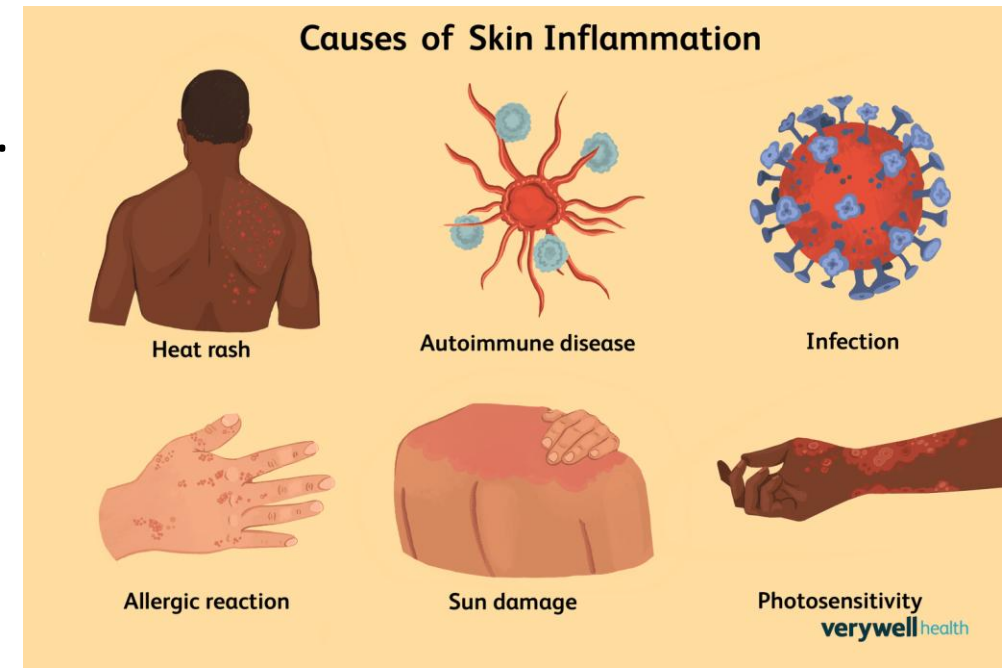
INFLAMMATION

Is the body normal protective response to tissue injury, trauma, damage, which serves to destroy invading organisms, foreign material and dying tissues, and set the stage for tissue, so that repair can occur.



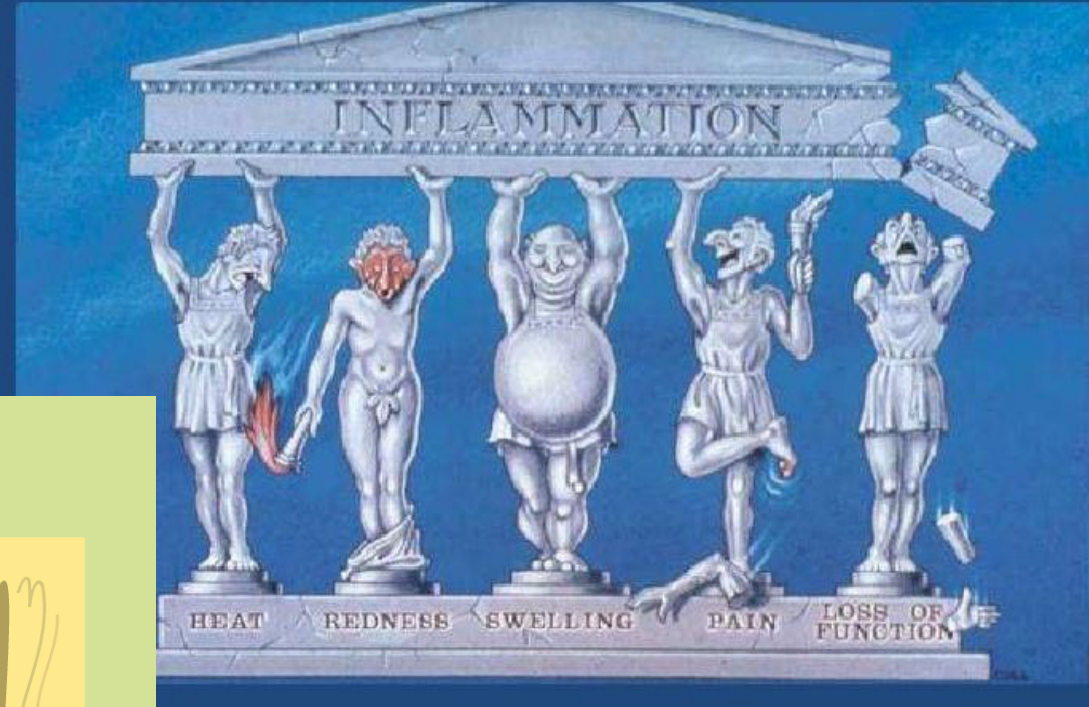
CAUSES OF INFLAMMATION

- **Infective agents** like bacteria, viruses and their toxins, fungi, parasites.
- **Immunological agents** like antigen-antibody reactions.
- **Physical agents** like heat, cold, radiation, mechanical trauma.
- **Chemical agents** like organic and inorganic poisons.
- **Inert materials** such as foreign bodies.

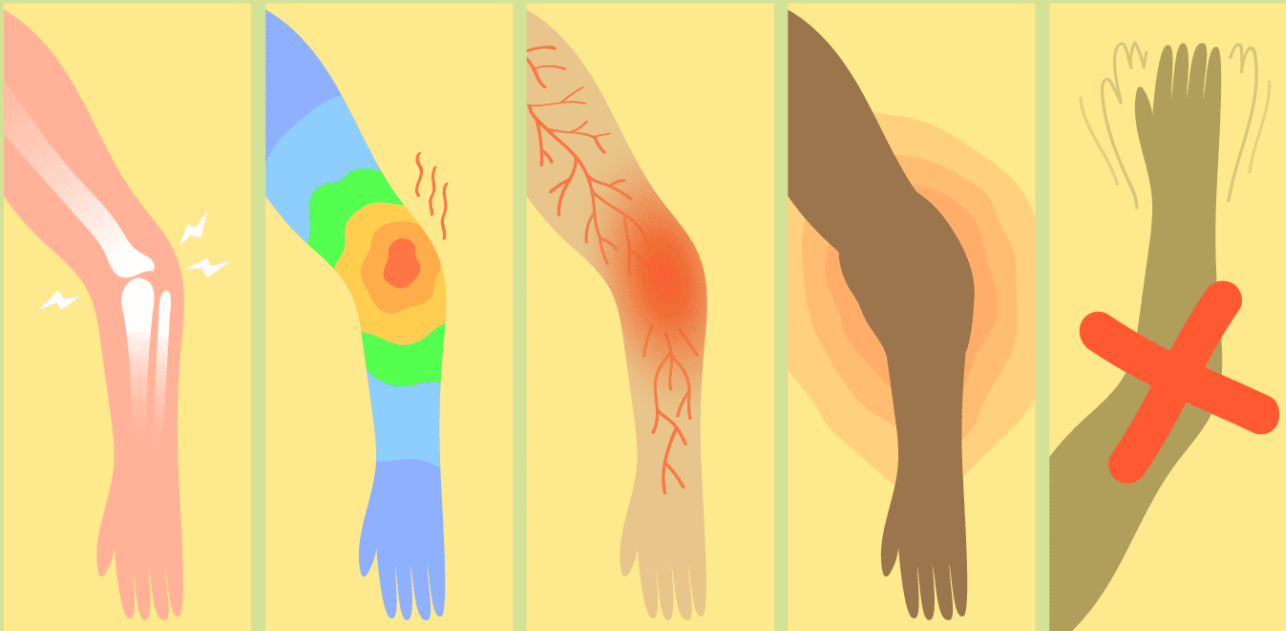


SIGNS OF INFLAMMATION

The Cardinal Signs of Inflammation



5 Cardinal Signs of Inflammation



Pain

Heat

Redness

Swelling

Loss of
Function



INFLAMMATION MAY HAVE **LIFE THREATENING EFFECTS**

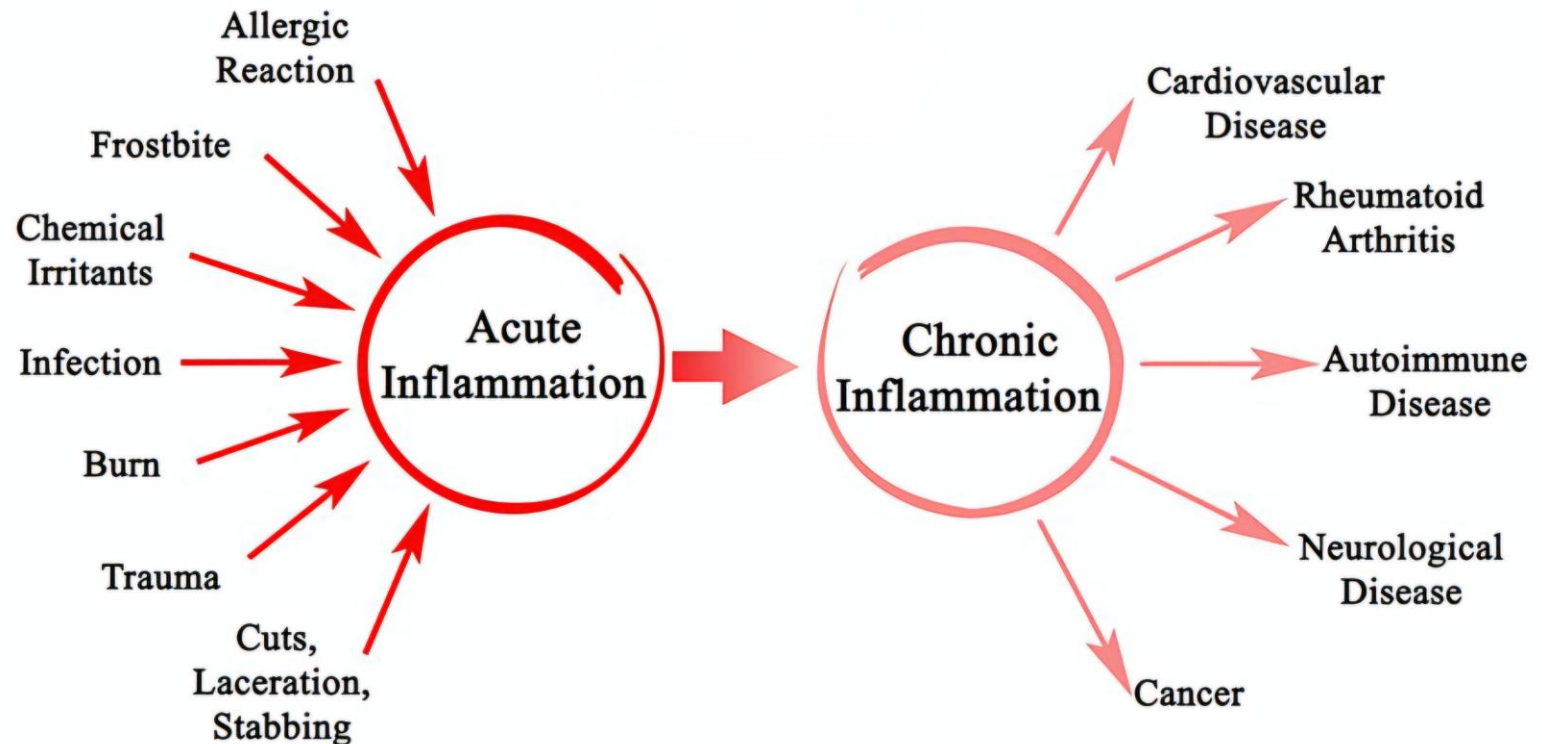
- ✓ It can cause life-threatening hypersensitivity reaction.
- ✓ When left untreated, prolonged chronic inflammation can increase your risk for diseases like diabetes, heart disease, cancer and rheumatoid arthritis.
- ✓ It can cause progressive organ damage from chronic inflammation and subsequent fibrosis like rheumatoid arthritis and atherosclerosis

INFLAMMATION CLASSIFICATION

Depending on the **time duration of inflammatory** process.

A. Acute inflammation

B. Chronic inflammation



ACUTE INFLAMMATION

- ✓ Rapid response to injury or microbe
- ✓ less than 2 weeks , short onset and duration (minutes. days)
- ✓ Serves to deliver defense mediators to the site
- ✓ Stages of acute inflammation:
 1. Vasodilation
 2. Increased vascular permeability
 3. Movement of white blood cells from blood vessels into soft tissue at the site of inflammation



CHRONIC INFLAMMATION

- ✓ Prolonged host response
- ✓ more than 2 weeks , late onset and duration (weeks, months, years)
- ✓ Causes of Chronic inflammation:
 1. Chronic inflammation following acute inflammation
 2. Recurrent attacks of acute inflammation
 3. Chronic inflammation starting de novo



TYPES OF INFLAMMATION

ACUTE “GOOD” INFLAMMATION



A serious threat triggers inflammation (a cut, bruise, infection, etc.)



The body releases inflammatory compounds



The job gets done & anti-inflammatory compounds are released. The body goes back to business as usual

CHRONIC “BAD” INFLAMMATION



A non-serious event triggers inflammation (eating a certain food, acne bacteria. etc.)



The body releases inflammatory compounds



The body *doesn't* release anti-inflammatory compounds and keeps sending an inflammatory response

Redness •

Swelling •

Heat •

Pain •

Acute v chronic inflammation

• **Body pain**

• **Constant fatigue and insomnia**

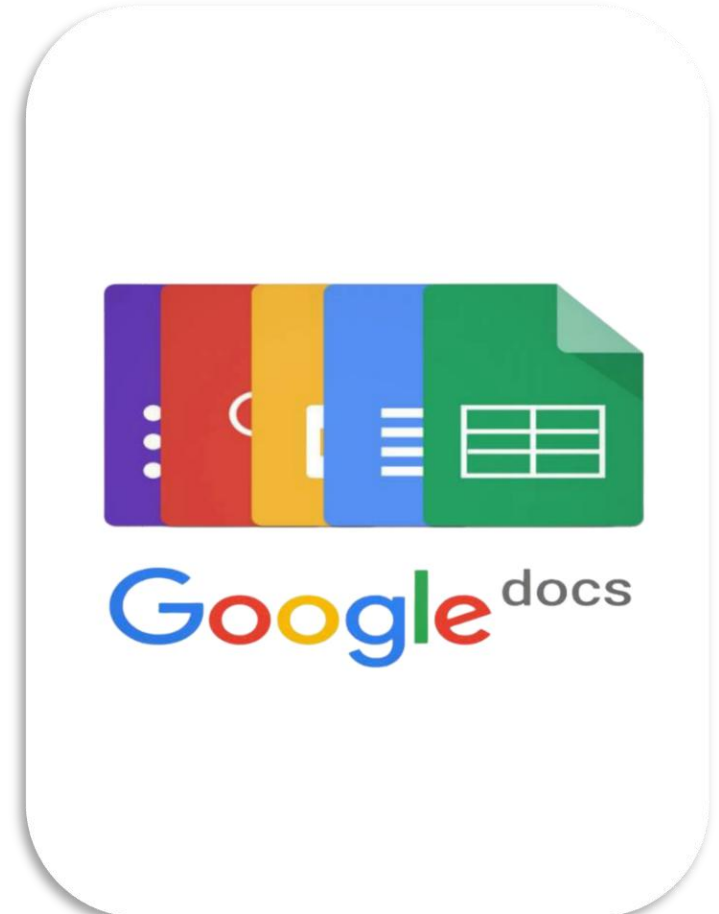
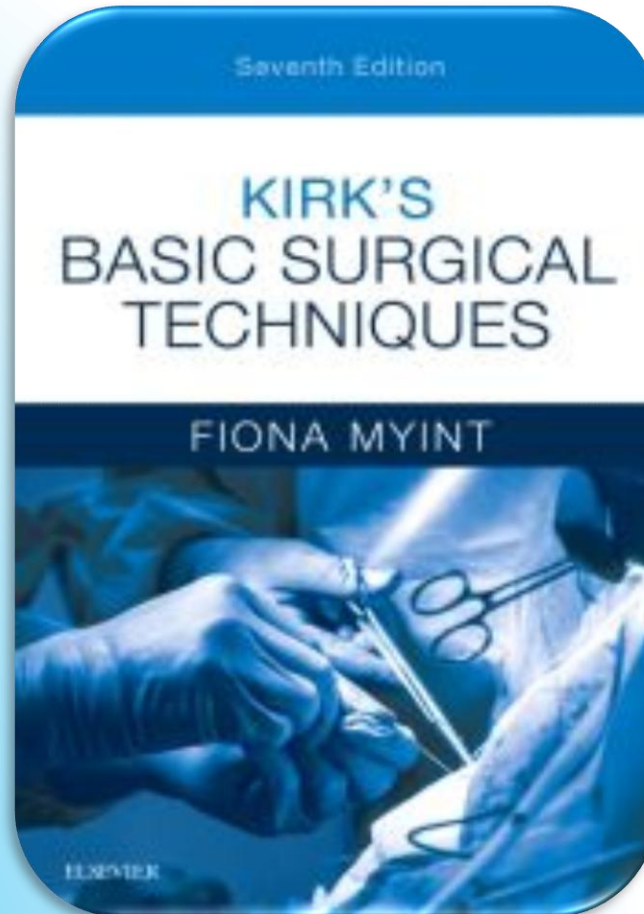
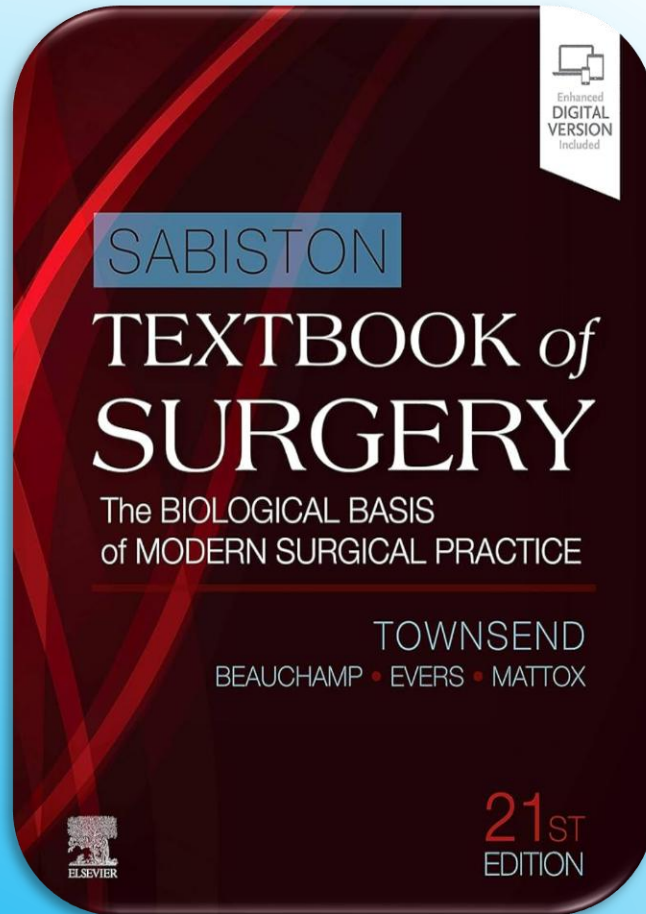
• **Depression, anxiety and mood disorders**

• **Problems with digestion**

• **Weight gain**

• **Frequent infections**

REFERENCES



Basic surgical technique, Fiona Myint, seventh edition
Text book of surgery, COURTNEY M. TOWNSEND, JR., MD, 21 edition, 2022



THANK YOU

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