



THE SKELETAL SYSTEM

UNIVERSITY OF RZESZÓW

FACULTY OF MEDICINE

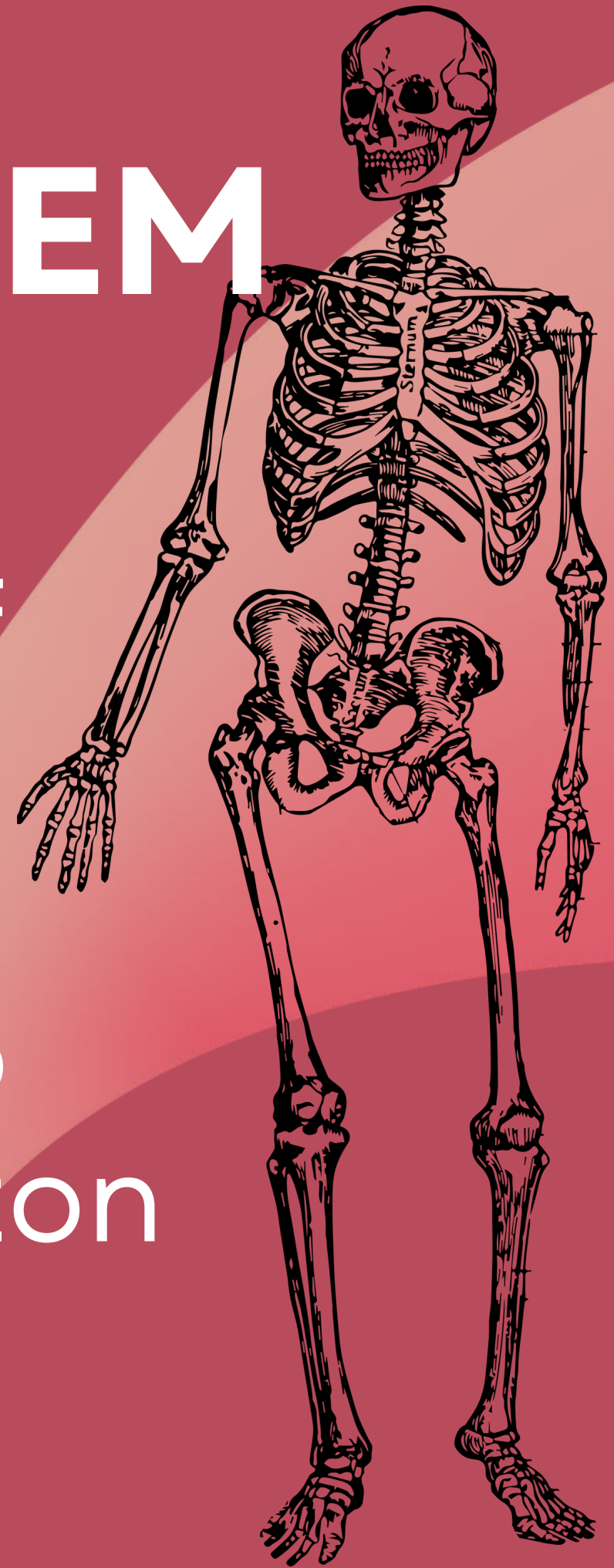
KATARZYNA WÓJCIK

3RD YEAR OF PHYSIOTHERAPY

THE SKELETAL SYSTEM

Human skeleton consist of
206 bones

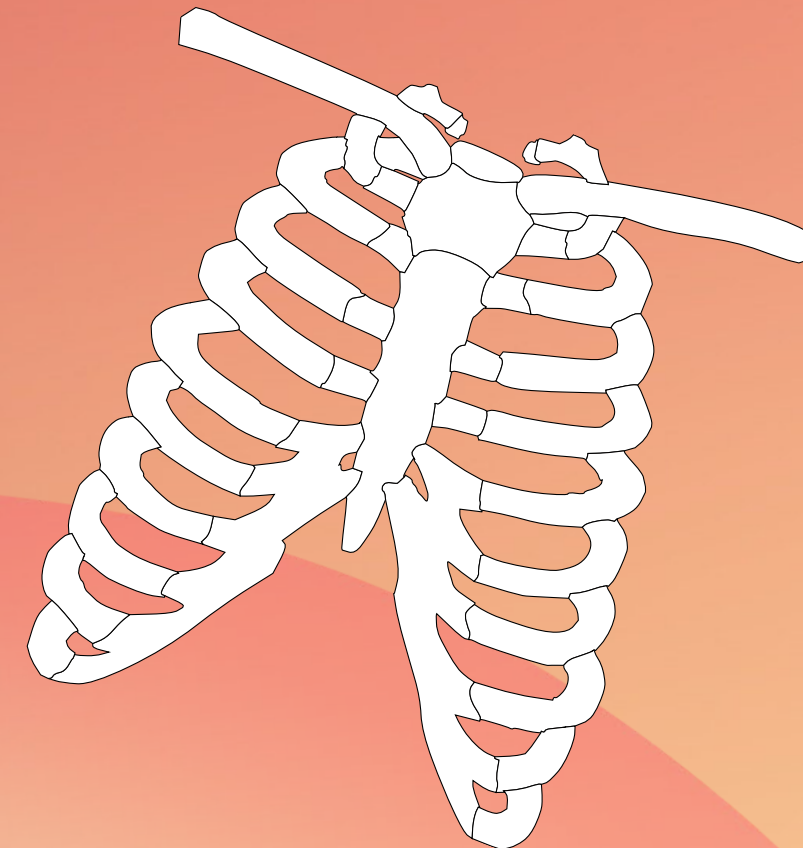
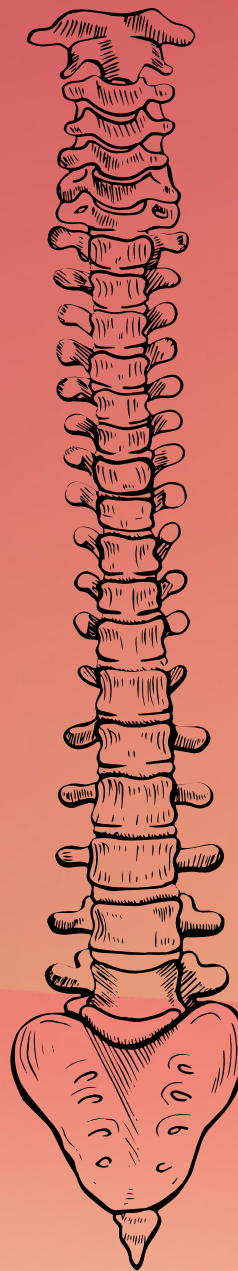
The skeletal system go into
axial and appendicular skeleton



AXIAL SKELETON

STRUCTURES:

skull
rib cage
vertebrale column



FUNCTION:

To protect the brain, heart,
lungs and spinal cord
The attachments of muscles

THE APPENDICULAR SKELETON

STRUCTURES:
Shoulder girdle
Arms
Pelvic Girdle
Legs

FUNCTION:
Protection
Movement



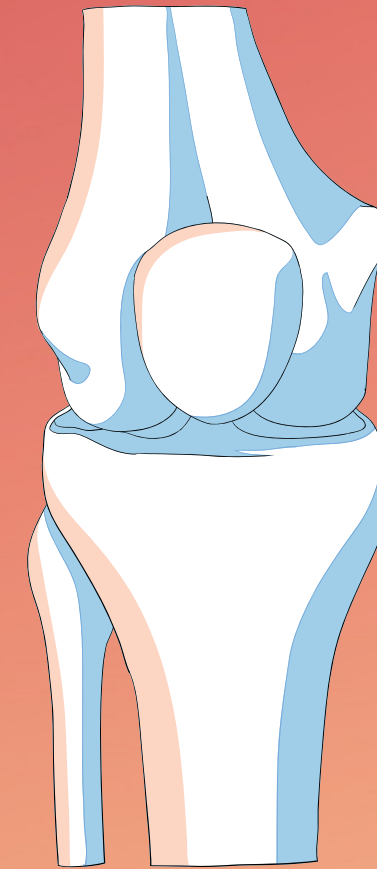
TYPES OF BONES

LONG
BONE



SHORT
BONE

FLAT
BONE

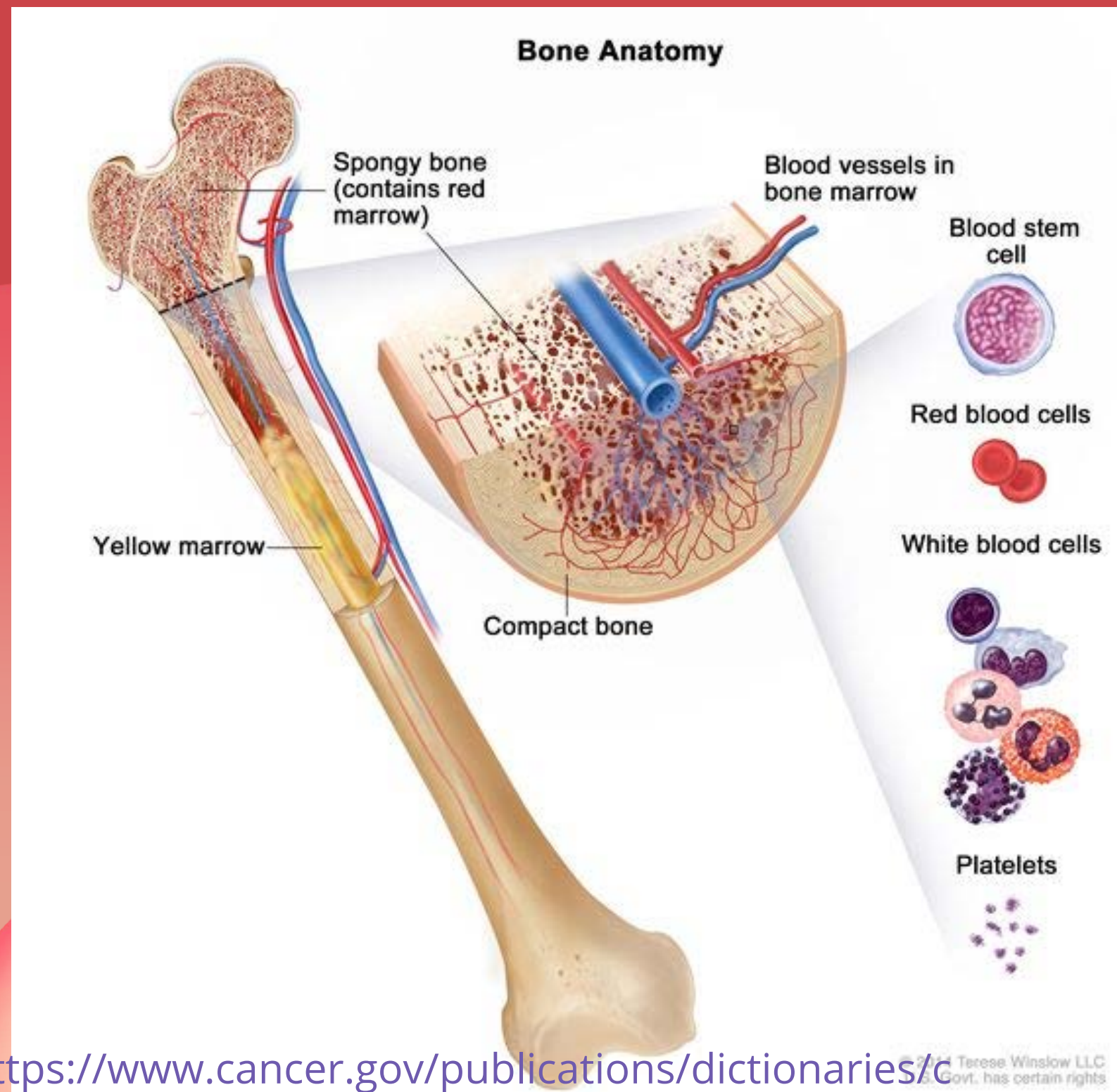


SESAMOID
BONE

IRREGULAR
BONE



BONE TISSUE



- Periosteum
- Compact bone
- Spongy bone
- Bone marrow

BONE MARROW

The background is a warm, orange-to-red gradient. It is populated with various stylized blood cells: numerous red blood cells (biconcave discs) in shades of red and pink, several white blood cells (irregular shapes with blue/purple nuclei) in shades of blue and purple, and a few small, dark red platelets. A large, bright red blood drop is visible in the lower right corner. The title 'BONE MARROW' is centered at the top in a large, white, sans-serif font, with a thin white horizontal line underneath it.

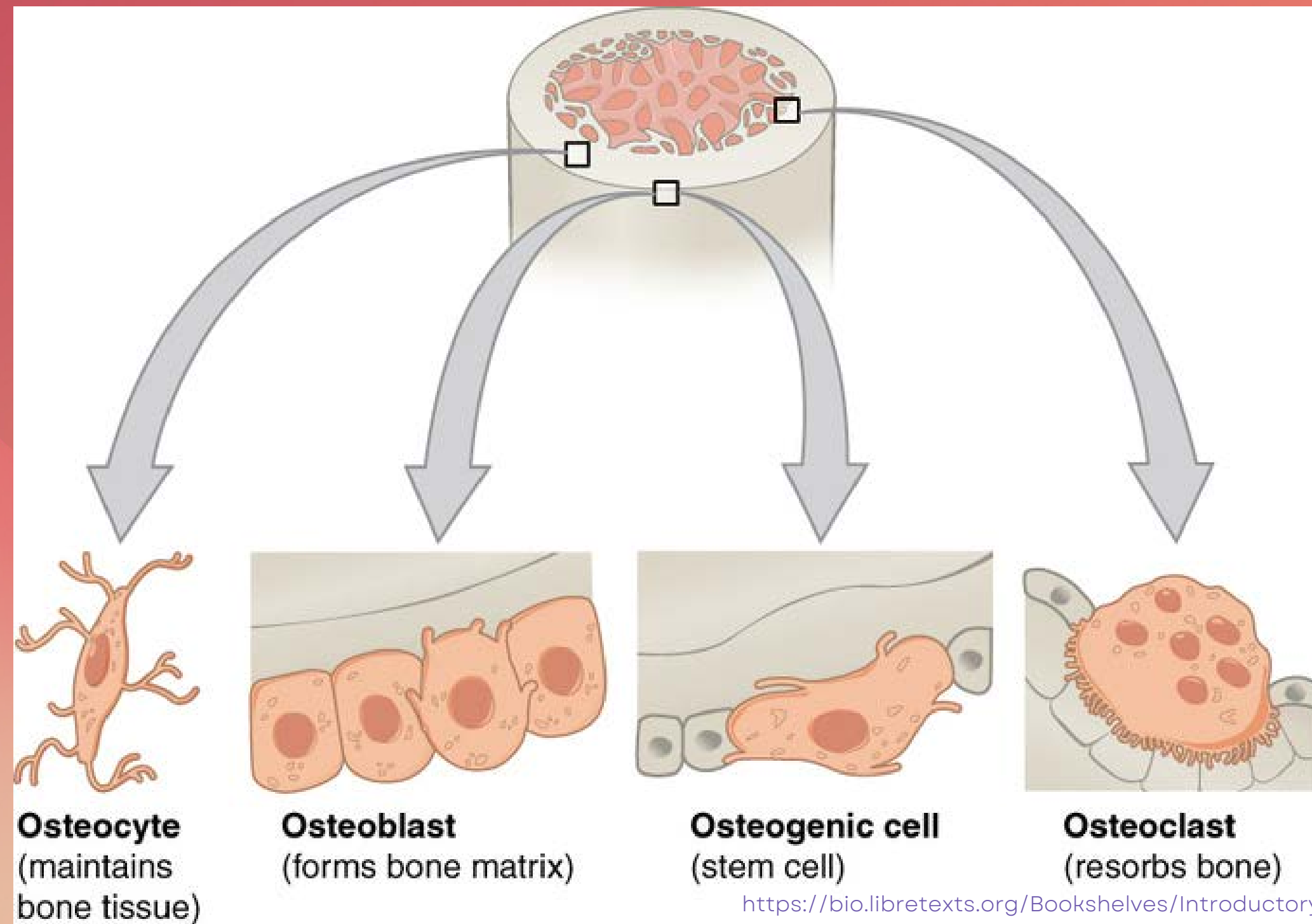
BONE MARROW IS WHERE THE BLOOD CELLS ARE MADE!

Red blood cells ----> carry oxygen

White blood cells ----> immunity

Platelets ----> clotting

BONE CELLS



BONE DENSITY

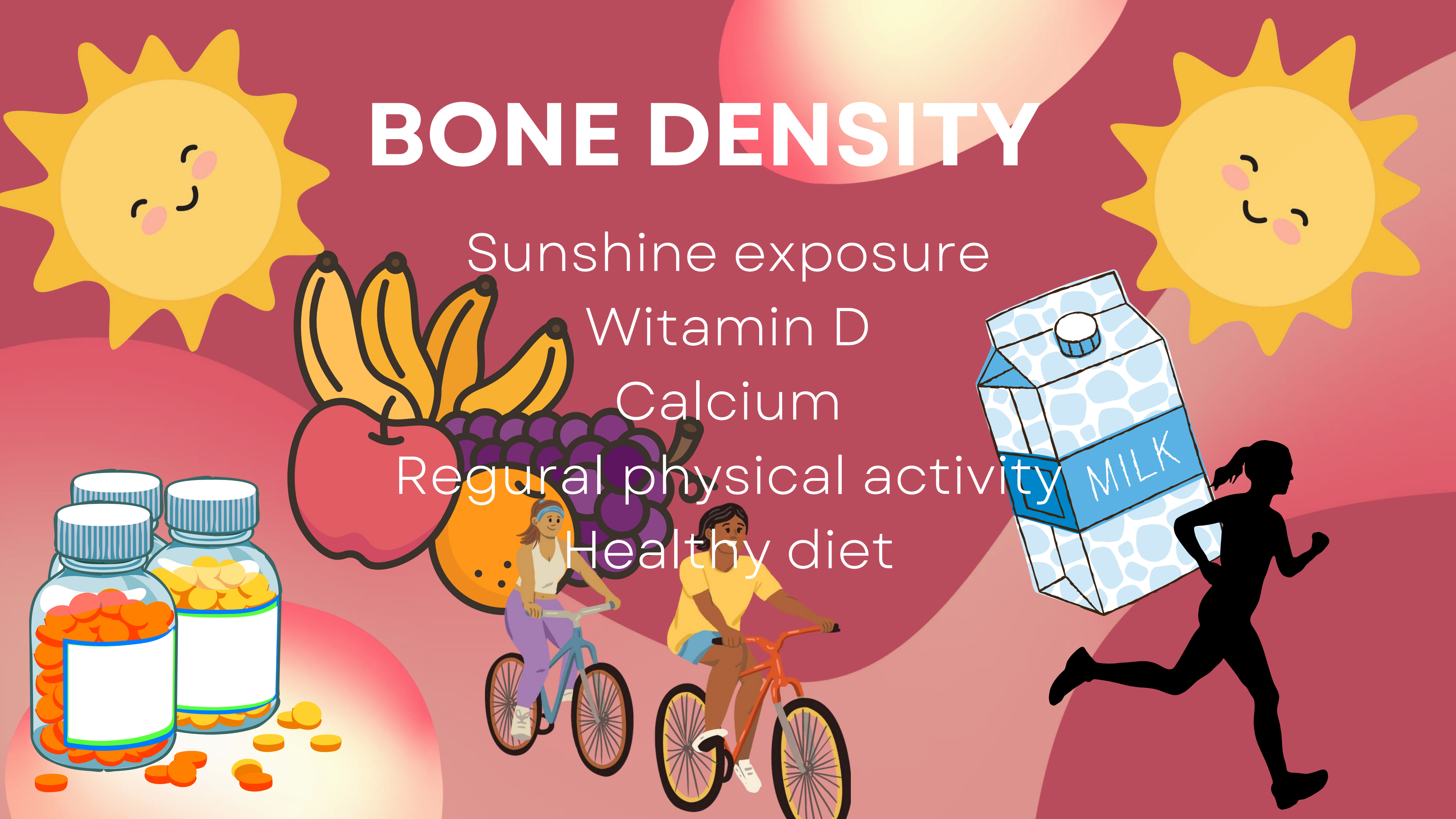
Sunshine exposure

Vitamin D

Calcium

Regular physical activity

Healthy diet

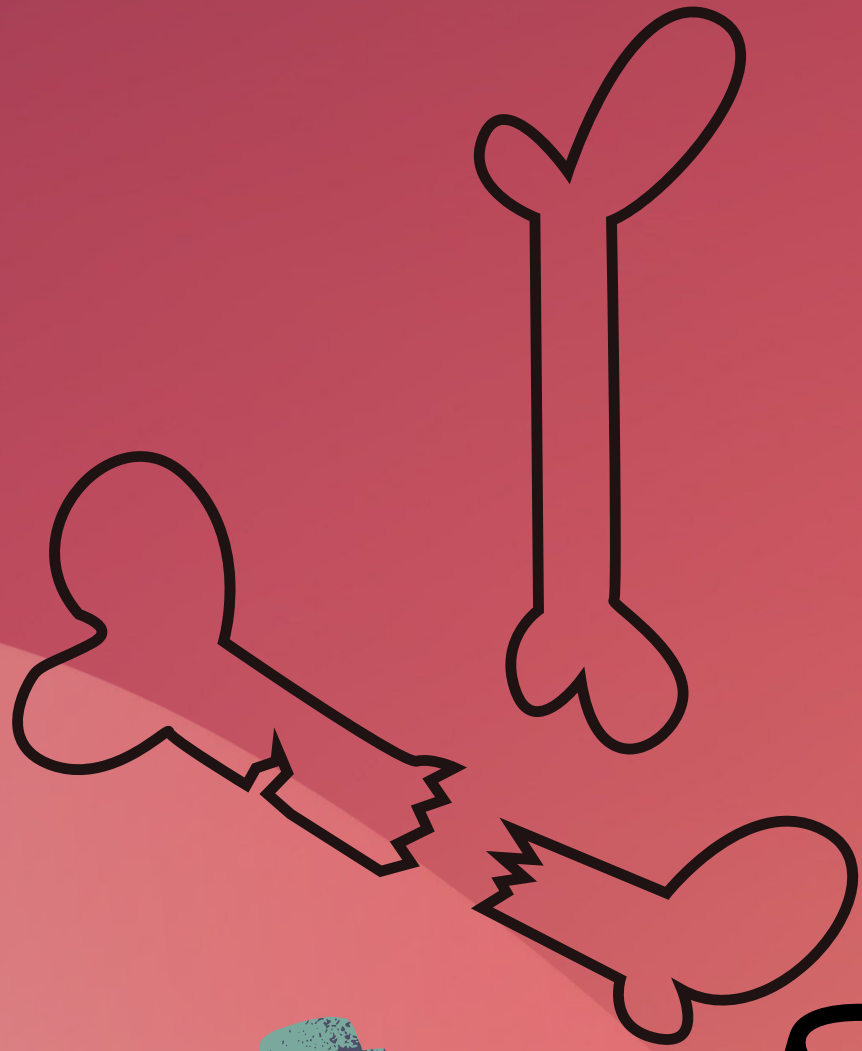


BONE DISEASES



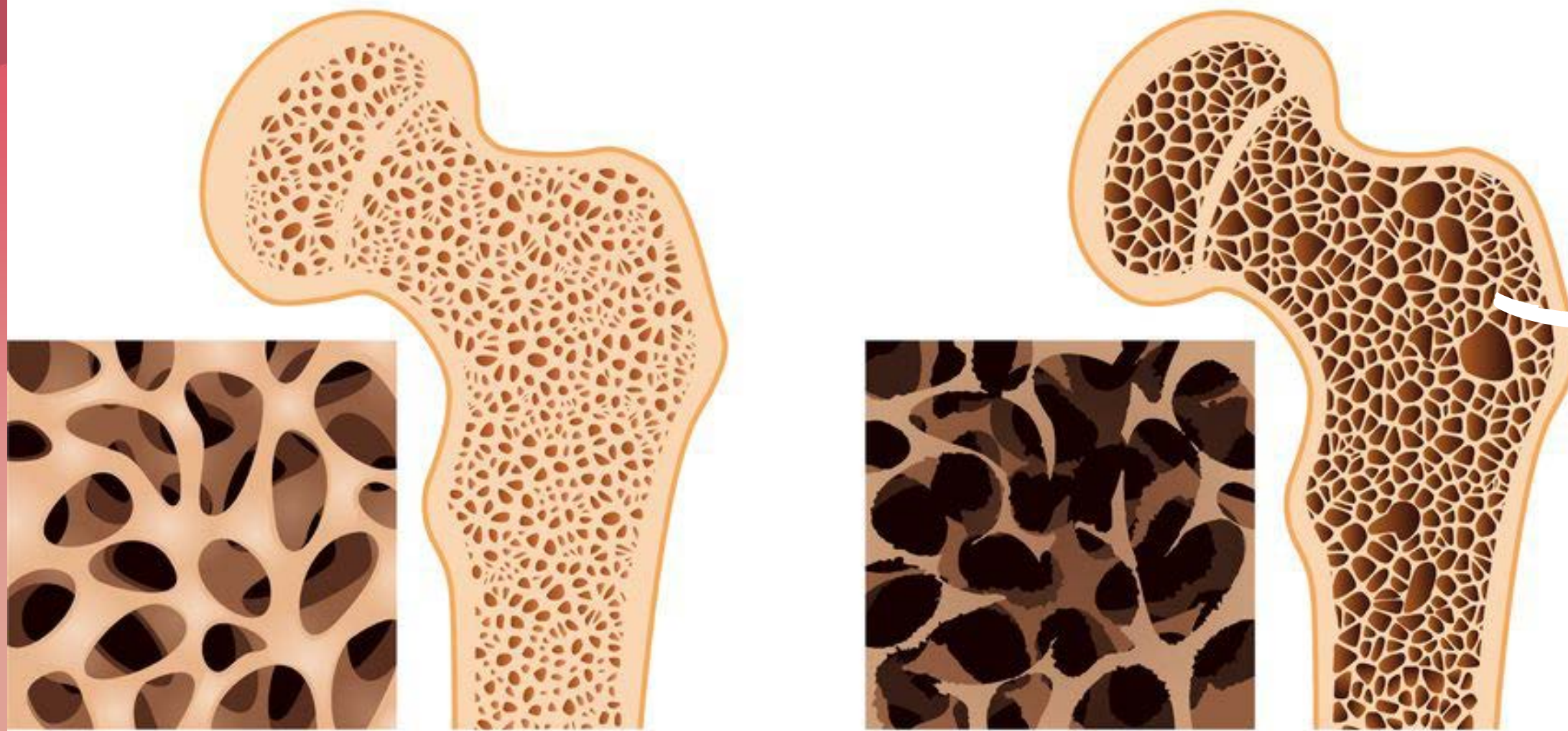
Aging
Genetics

Hormonal changes
Nutritional deficiencies
Low physical activity
Smoking
Alcohol consumption



OSTEOPOROSIS

Osteoporosis



Healthy bone

Osteoporosis

Weak and brittle bones

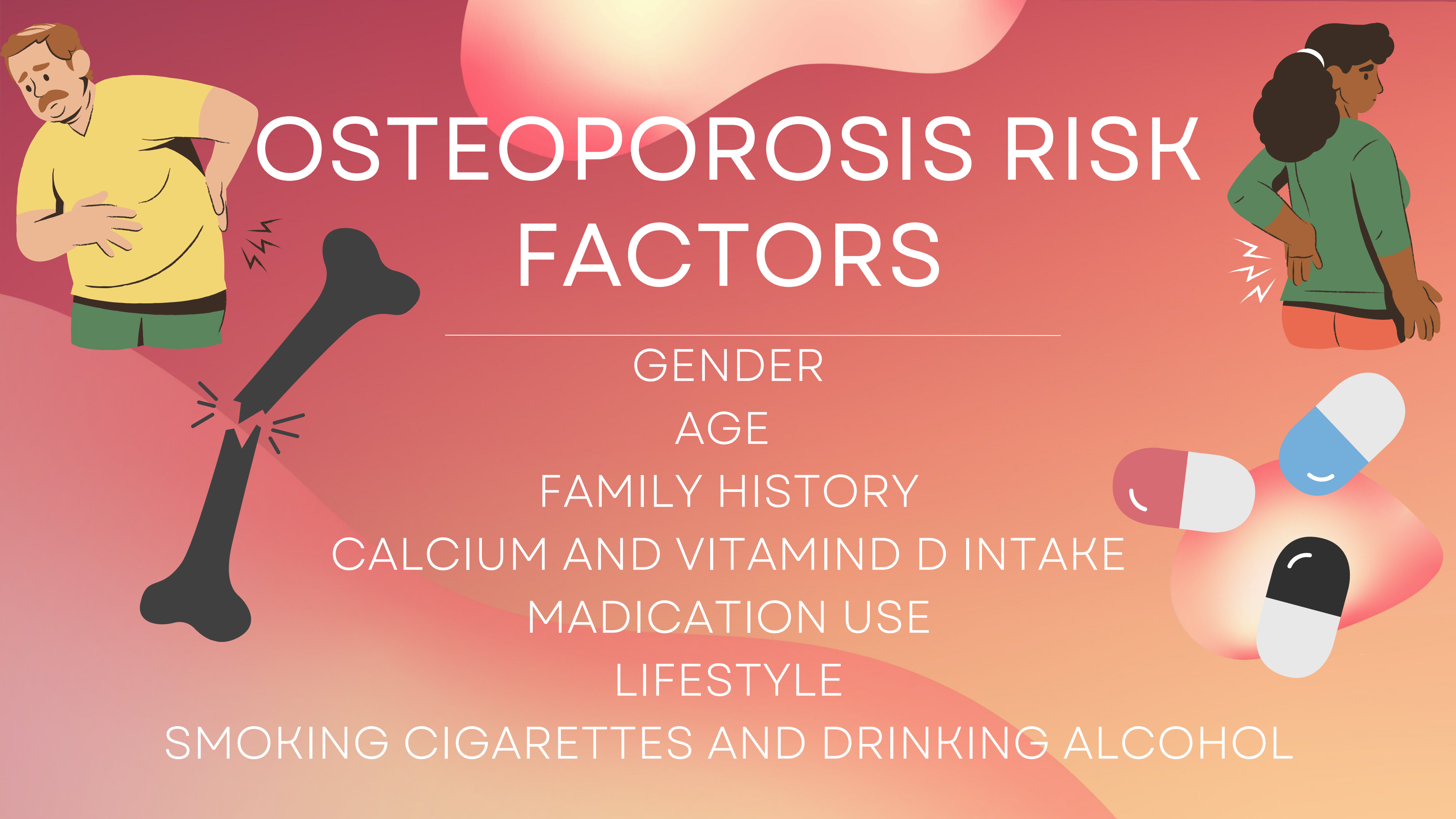
SYMPTOMS:

Back pain

Loss of height over time

Stooped posture

Frequent fractures



OSTEOPOROSIS RISK FACTORS

GENDER

AGE

FAMILY HISTORY

CALCIUM AND VITAMIN D INTAKE

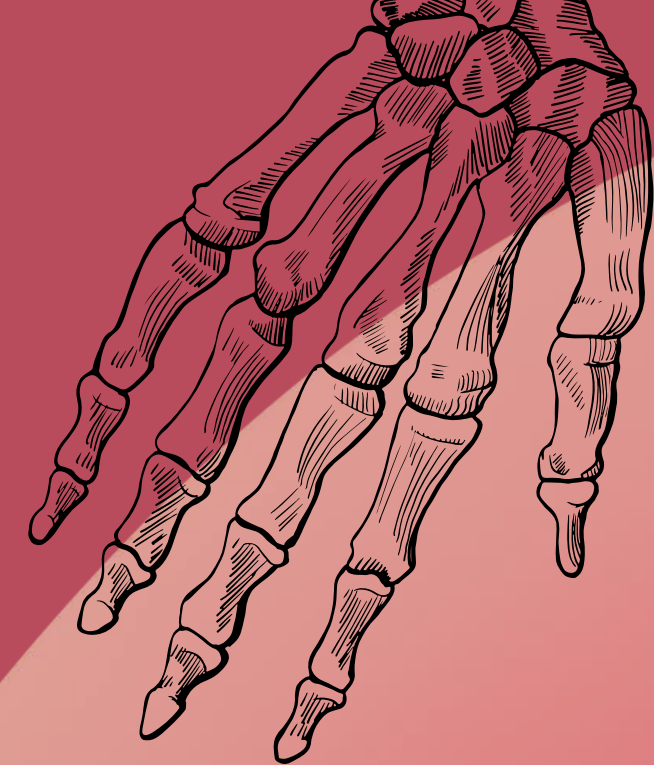
MEDICATION USE

LIFESTYLE

SMOKING CIGARETTES AND DRINKING ALCOHOL



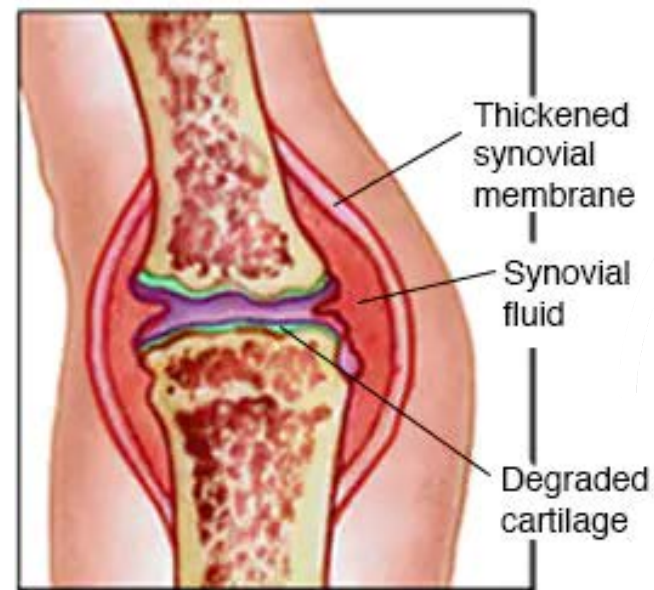
ARTHRITIS



SYMPTOMS:

Tender, warm, swollen joints
Joint stiffness that is usually worse in the morning and after inactivity
Fever and loss of appetite

Immune system attacks the lining of the joint capsule



SŁOWNICZEK:

Axial skeleton- szkielet osiowy
Appendicular skeleton- szkielet
obwodowy

Shoulder girdle- obręcz barkowa

Pelvic girdle- obręcz biodrowa

Thigh bone- kość udowa

Humerus- kość ramienna

Fibula- kość strzałkowa

Cranium - czaszka

Osteogenesis- kostnienie

Periosteum- okostna

Compact- zbita



Spongy- gąbczasta
Bone marrow- szpik kostny

Platelets- płytki krwi

Blood clot- krzepnięcie krwi

Immunity- odporność

Bone density- gęstość kości

Fracture- złamanie

Stooped posture- postawa zgarbiona

Arthritis- zapalenie stawów

Stiffness- sztywność

Inflamed- stan zapalny

Sternum- mostek

BIBLIOGRAPHY:

1. English for physiotherapy, Joanna Ciecierska, Warszawa, Wydawnictwo Lekarskie PZWL
2. Zhang M, Chen P, Li B, Du J, Pan T, Chen J. Approach to the patient with pregnancy and lactation-associated osteoporosis: A case report and a review of the literature. 2017
3. M. Janiszewska, T. Kulik, M. Dziedzic, D. Żołnierczuk-Kieliszek, A. Barańska, Osteoporosis as a social problem – pathogenesis, symptoms and risk factors of postmenopausal osteoporosis, Probl Hig Epidemiol 2015
4. A. Huysseune, Skeletal System, The Laboratory Fish, Handbook of Experimental Animals 2000

Dziękuję za uwagę!

