

# ***SCIENTIFIC ENGLISH II***

## ***Anglais scientifique II***

**For students in master II**

**Biotechnology and plants valorisation**

**Applied biochemistry**

**Applied microbiology**

**Parasitology**

**2020-2021**

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# **Useful Prefixes and Suffixes in Biological sciences**

- Prefix (**aer- or aero-**) –  
=air, oxygen
- Examples: **aerobic** (aer-o-bic) : with oxygen

**Certain microorganisms are aerobic.**  
**They can only exist in the presence of oxygen.**

- **amphi-**  
= both, on both sides, around
- Examples: **amphibian** (amphi-bian) :

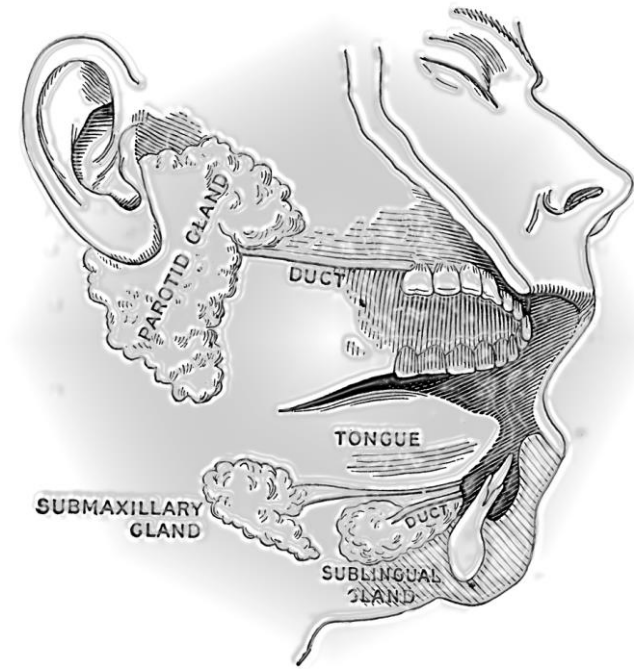
animal that can live on both  
land and water



- Prefix **(amyl-)**  
= starch
- Examples: **amylase**

- a group of starch enzymes

**Amylase, found in our saliva, works to help breakdown starch into sugar.**



Duct : canal

- Prefix (**ana-**)

= upward, back, again, up,

- Examples: **an**aplasia (ana-plasia) :  
cell reverting to an immature form

- **An**abolism :

**constructive metabolism; the synthesis in living organisms of more complex substances from simpler ones**

- Prefix **albi-** : white

Exp :

- **albicans** : *Candida albicans*

- **Albino** :

an organism exhibiting deficient pigmentation especially : a human being who is congenitally deficient in pigment and usually has a milky or translucent skin, white or colorless hair, and eyes with pink or blue iris and deep-red pupil



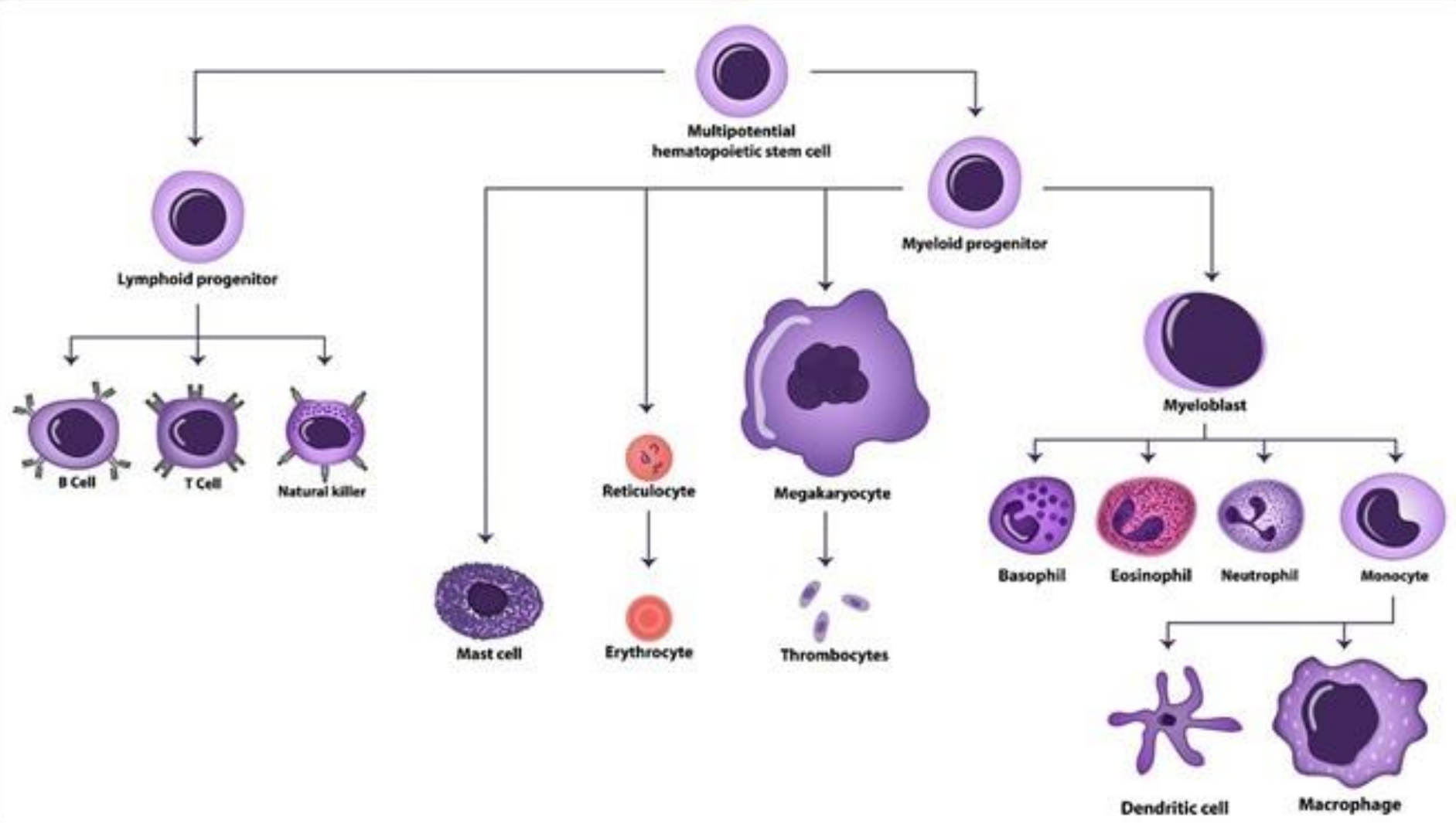
*Candida albicans*



• Suffixe : **-POIESIS**

: Formation, production....

**Exp:** hematopoeisis : formation of blood cells





- Suffixe : **-RRHAGIA**

**= excessive flow**

**= excessive or unusual discharge.**

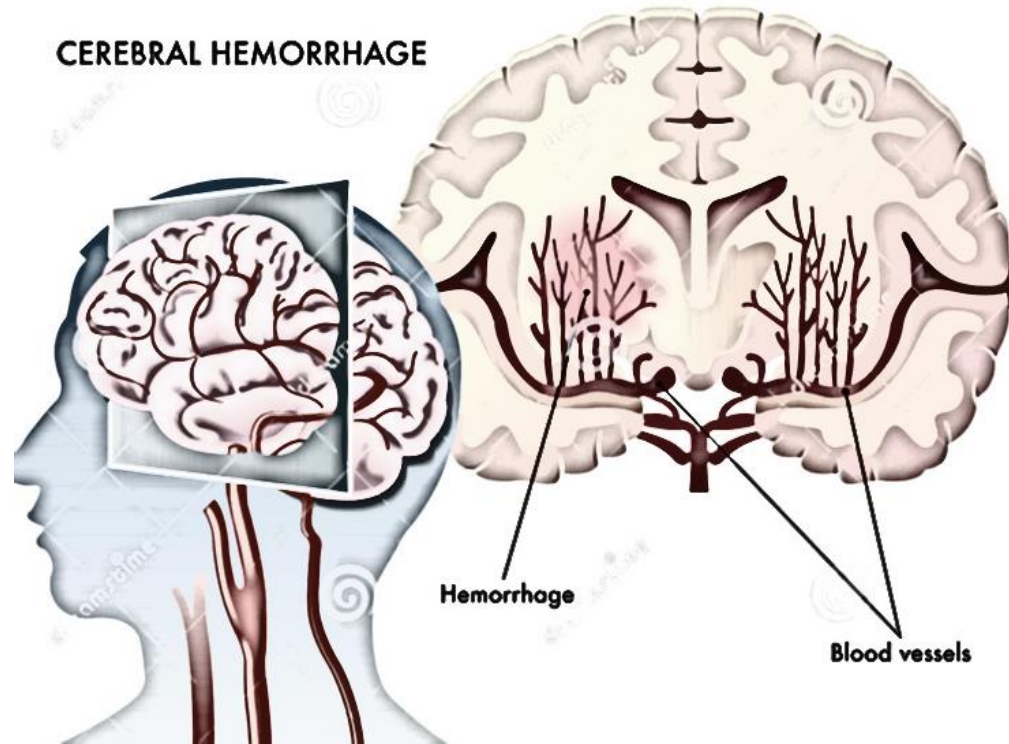
- Exp: Hemorrhage:

- **the escape of blood from a ruptured vessel; it can be either external or internal.**

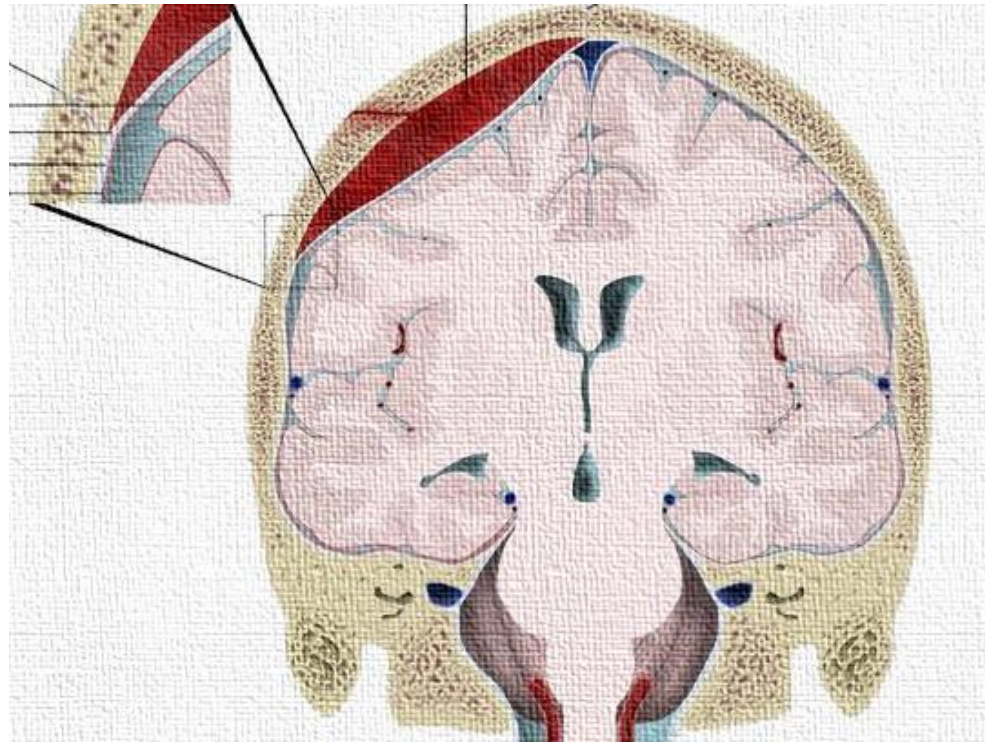
- **internal hemorrhage**
- **that in which the extravasated blood remains within the body.**

- **postpartum hemorrhage** that which follows soon after labor.
- **primary hemorrhage** that which directly follows an injury.
- **secondary hemorrhage** that which follows an injury (une blessure) after a considerable lapse of time.

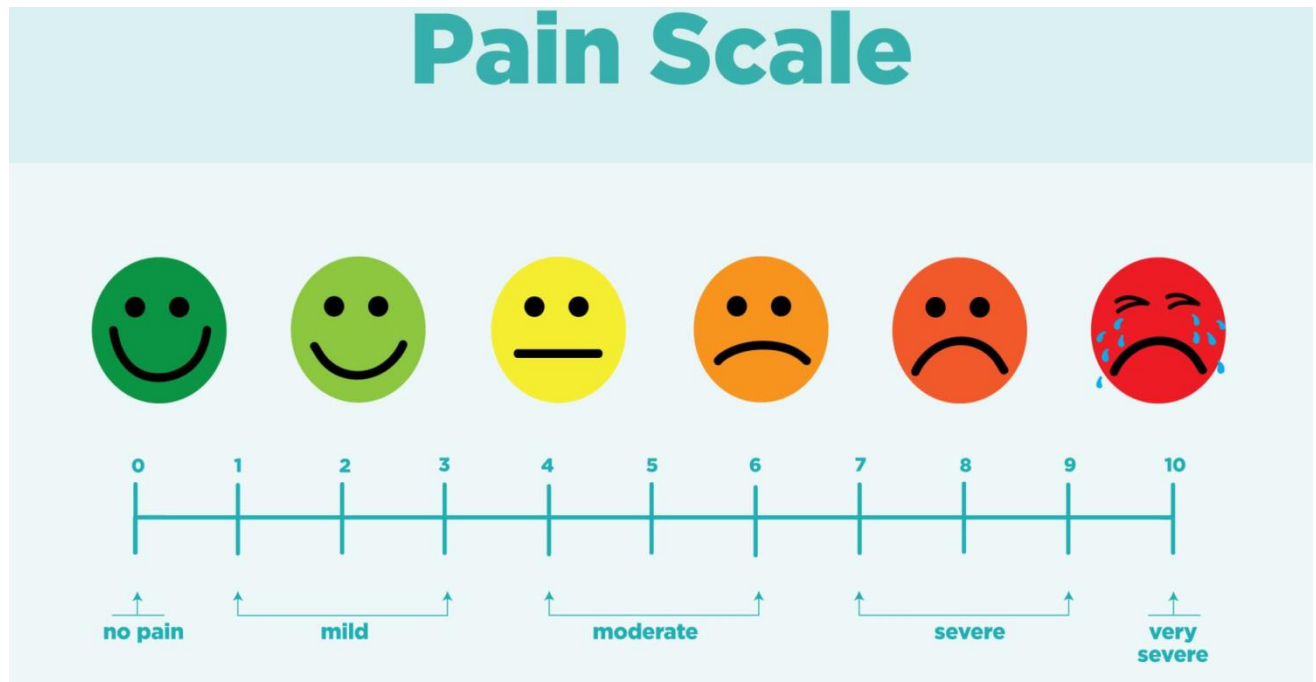
- **cerebral hemorrhage**
- **hemorrhage into the cerebrum; one of the three main causes of CerebroVascular Accident CVA**



- **intracranial hemorrhage**
- **bleeding (saignement)**  
**within the cranium.**

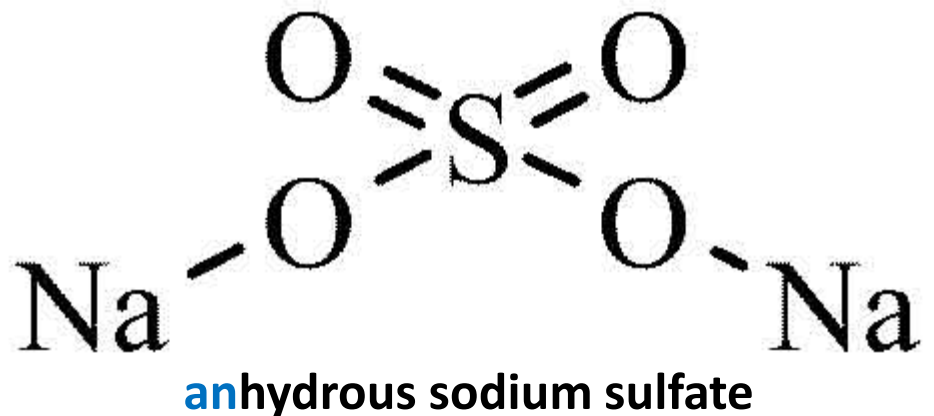


- Suffixe (-**algia**) = pain
- In Pathology (Medicine):
- Sharp (**aigue**) or severe pain extending along a nerve or group of nerves.
- severe spasmodic ( Happening intermittently ) pain caused by damage to or malfunctioning of a nerve



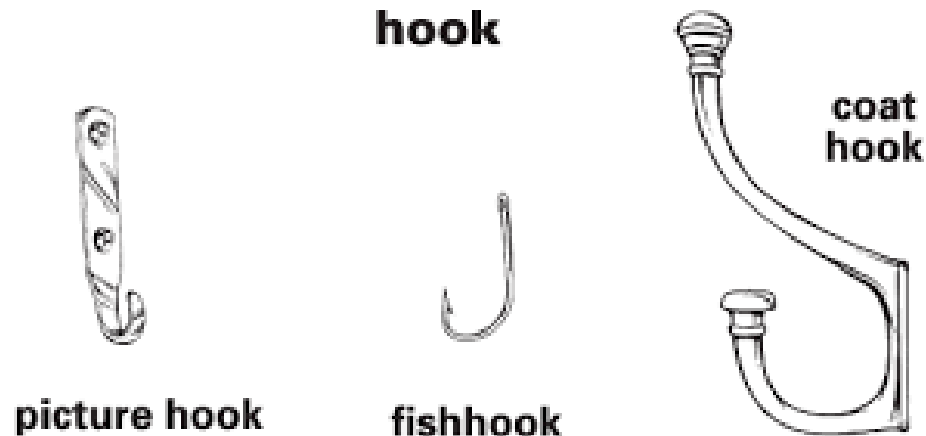
- Prefixe : **(an- )** = not, without
- a prefix occurring in words beginning with a vowel or *h*
- it means “not,” “without,” “lacking”

- Exp:
- (*an*archy: disorder)
- Anhydrous : (*Chemistry*)  
with all water removed



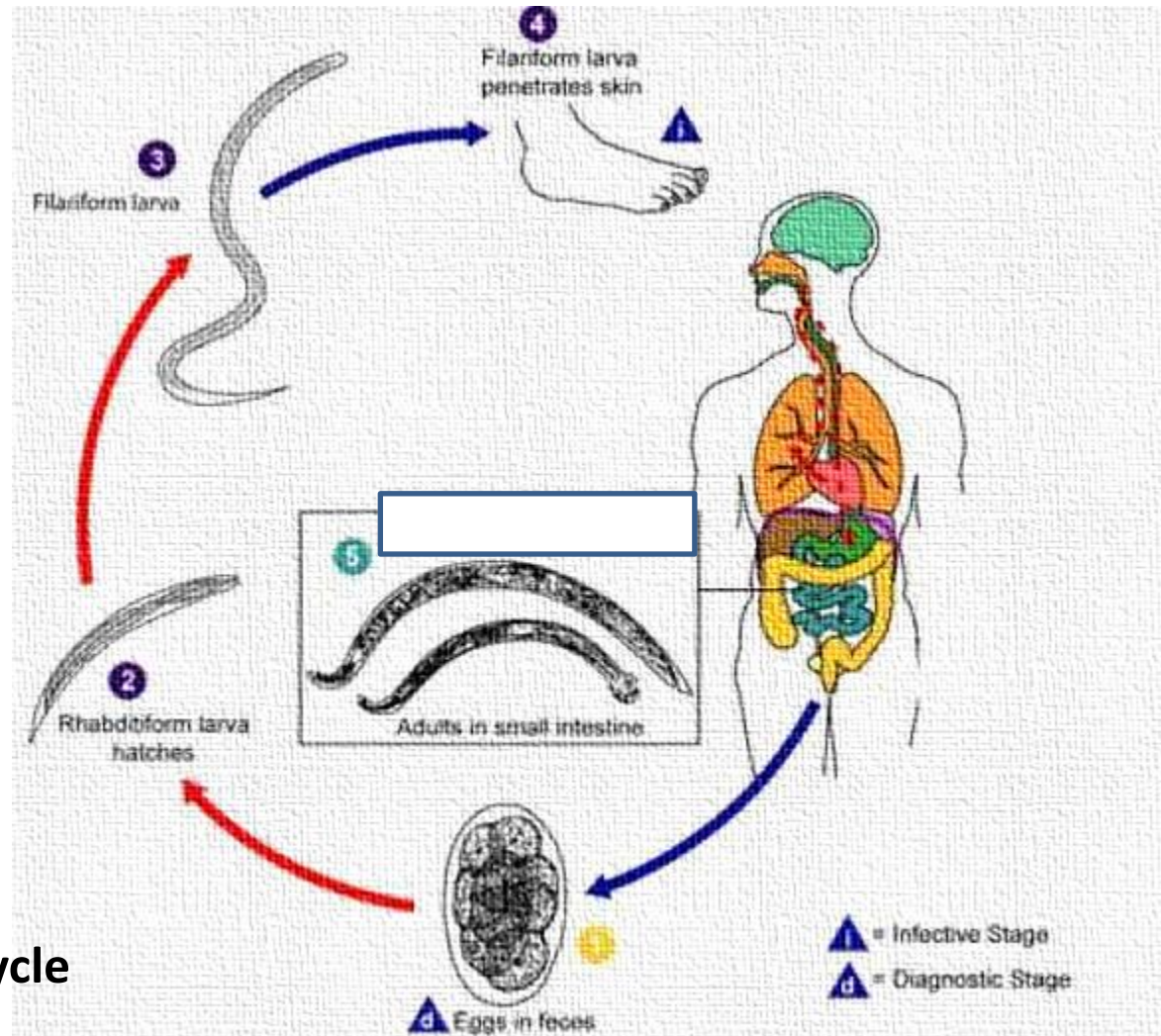


- Prefixe : (**ancylo-** )(**ankylo-**)  
(Greek *ankýlos*) = crooked, curved
- a combining form meaning “hook (**crochet, hameçon**):  
( curved or angular),” “joint  
(the movable or fixed place)”



- used in the formation of technical terms:

**Exp :**  
**Ancylostomiasis.**



***Ancylostoma duodenale* life cycle**

- any of certain **bloodsucking** nematode worms, as
- *Ancylostoma duodenale*

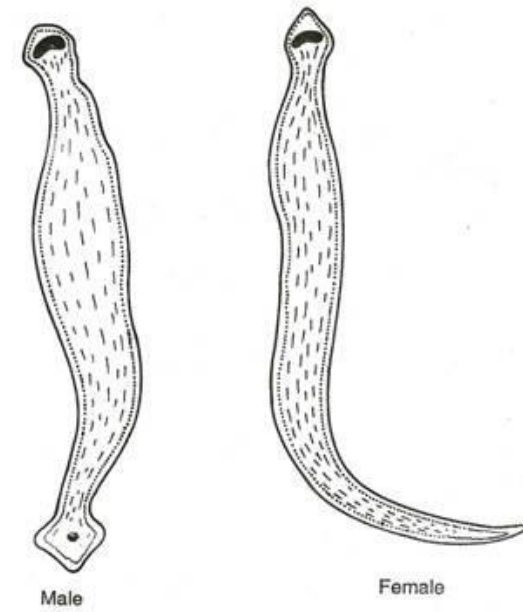
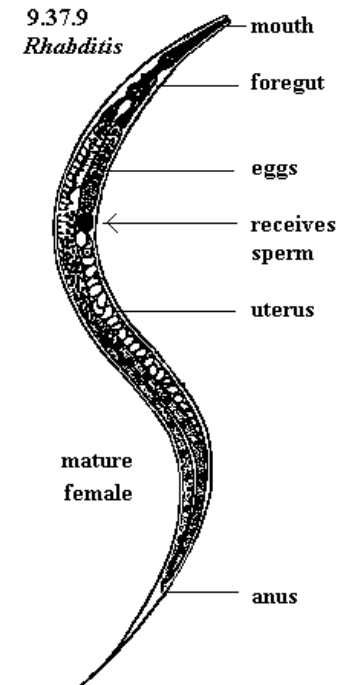


Fig. 193. *Ancylostoma duodenale*

and *Necator americanus*,  
parasitic in the intestine  
of humans and  
other animals.



- 2. Also called **hookworm disease** :  
a disease caused by **hookworms**
- (any of certain bloodsucking nematode worms)
- which may enter the body by ingestion or through the skin of the feet or legs, causing abdominal pain, nausea, and, if untreated, severe anemia.

- Prefixe : (angio-)

= **Medicine:** indicating a blood or lymph vessel

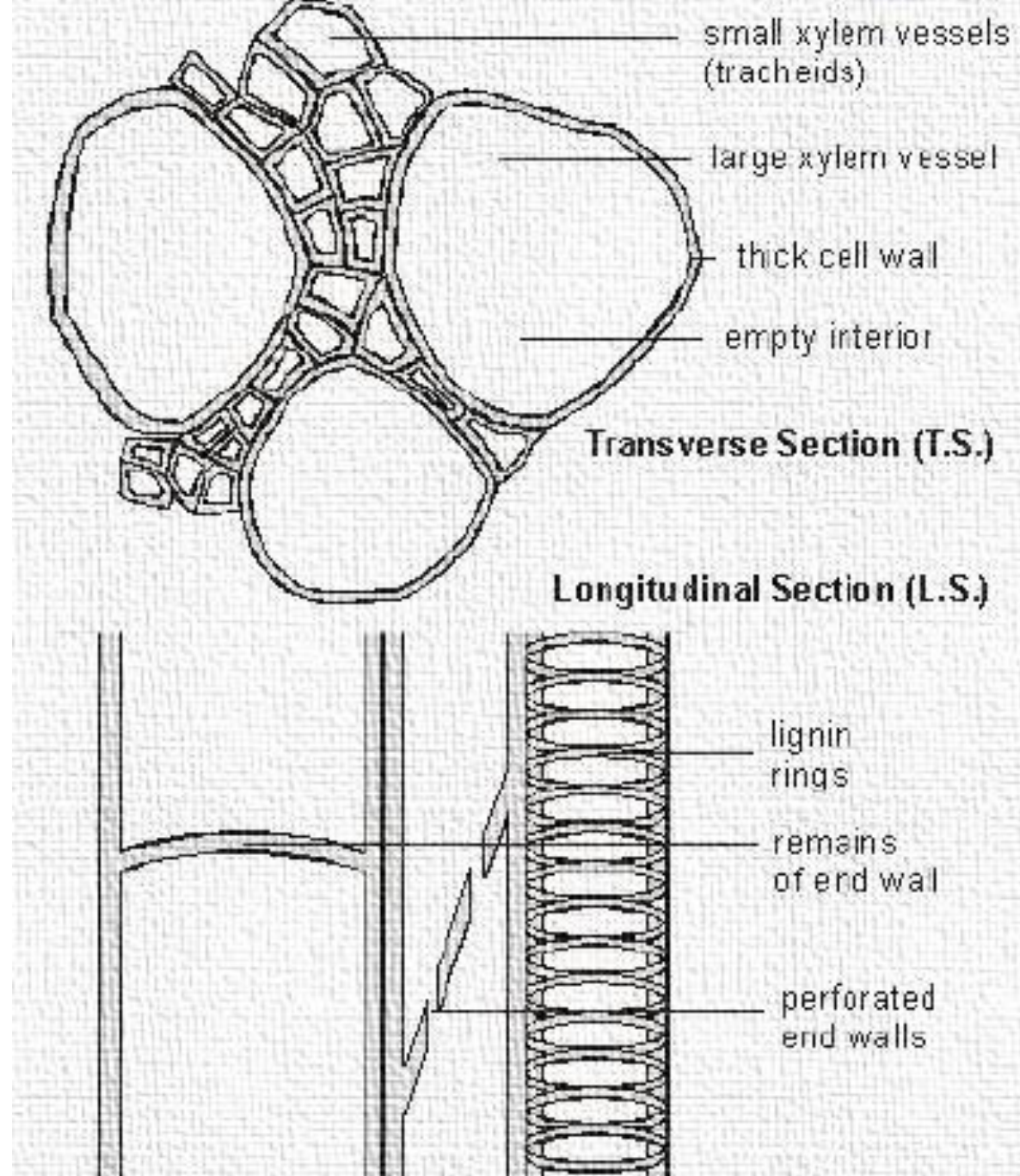
= **Anatomy, Zoology.** a tube or duct,

as an artery or vein,

containing or conveying (transport)

blood or some other body fluid.

- **Botany.**
- a duct formed in **the xylem**, composed of connected cells that have lost their **intervening partitions**, that conducts water and mineral nutrients.



# Xylem tissue

## Function

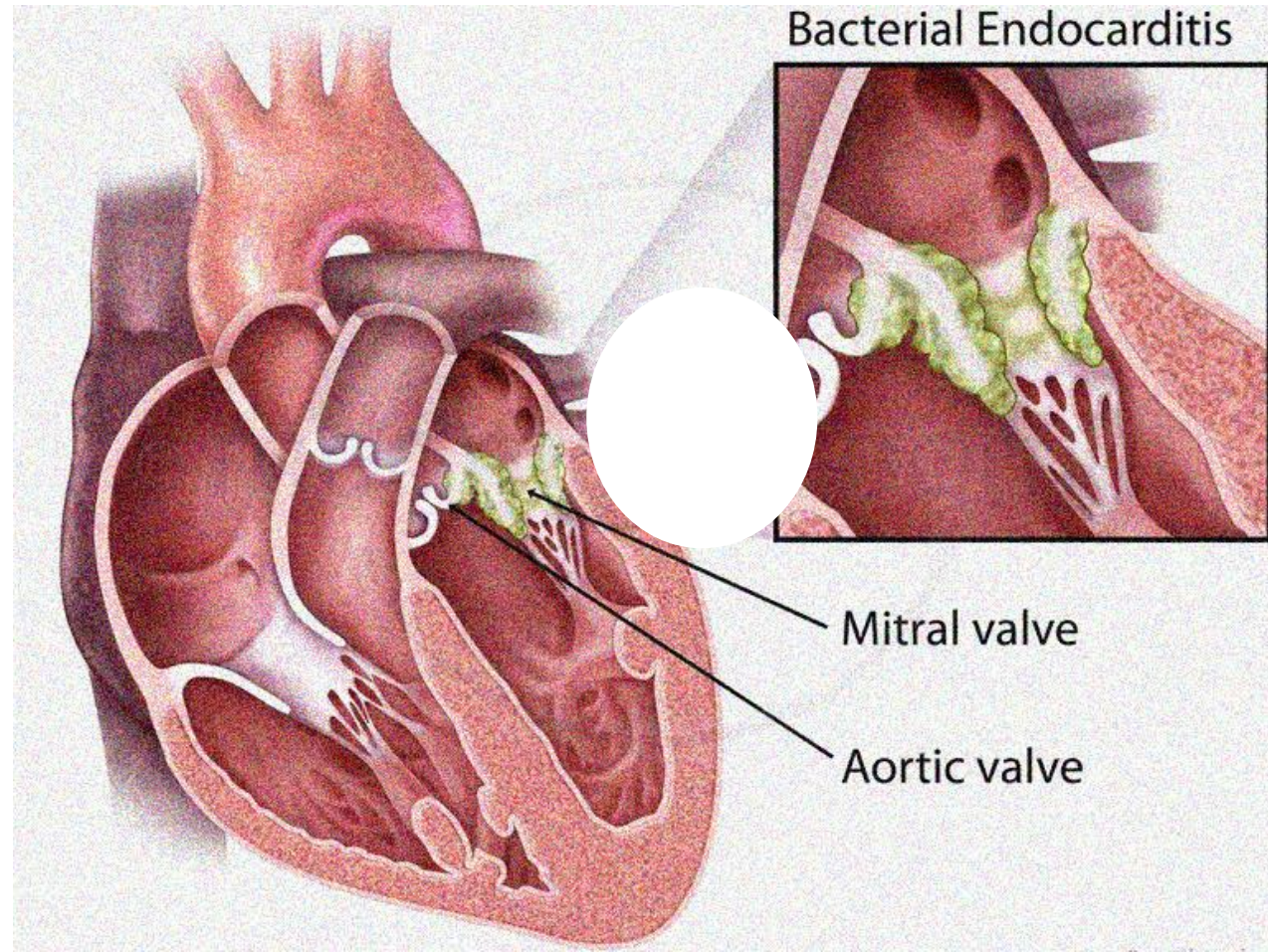
- transports water and mineral salts from  
  
roots → stem → leaves
- **Unidirectional**
- composed of hollow, **nonliving** cells (continuous lumen)
- provides mechanical support to plant because of *lignified walls*

- **Angiology:**

the branch of anatomy dealing with blood vessels and lymphatics.

**angiocarditis :**

Inflammation of the heart and the blood vessels.



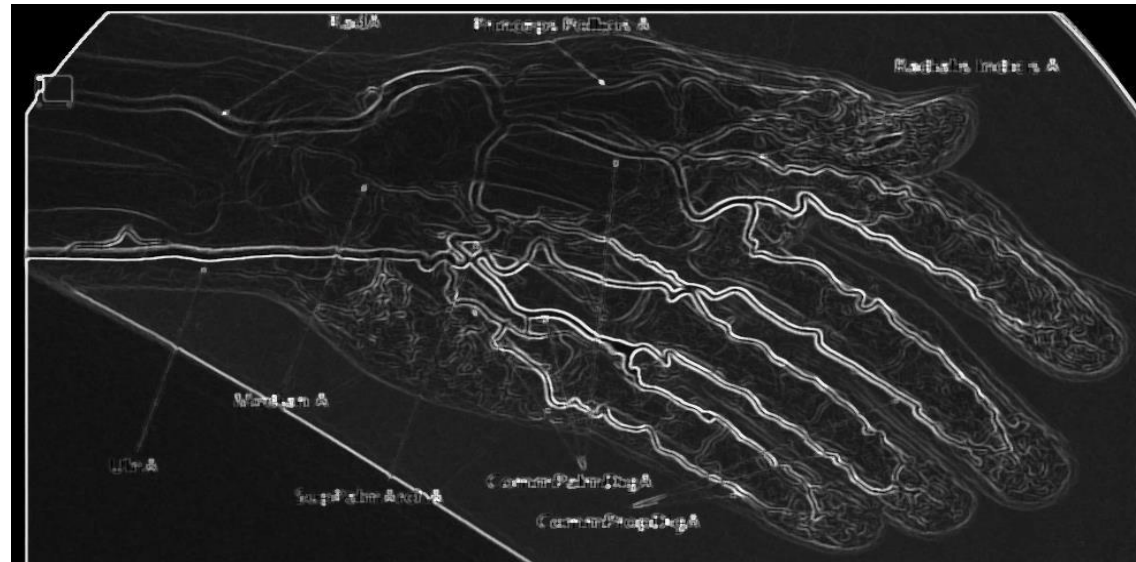


- angiography :

An x-ray of one or more blood vessels or lymphatics following the injection of a **radiopaque substance**.

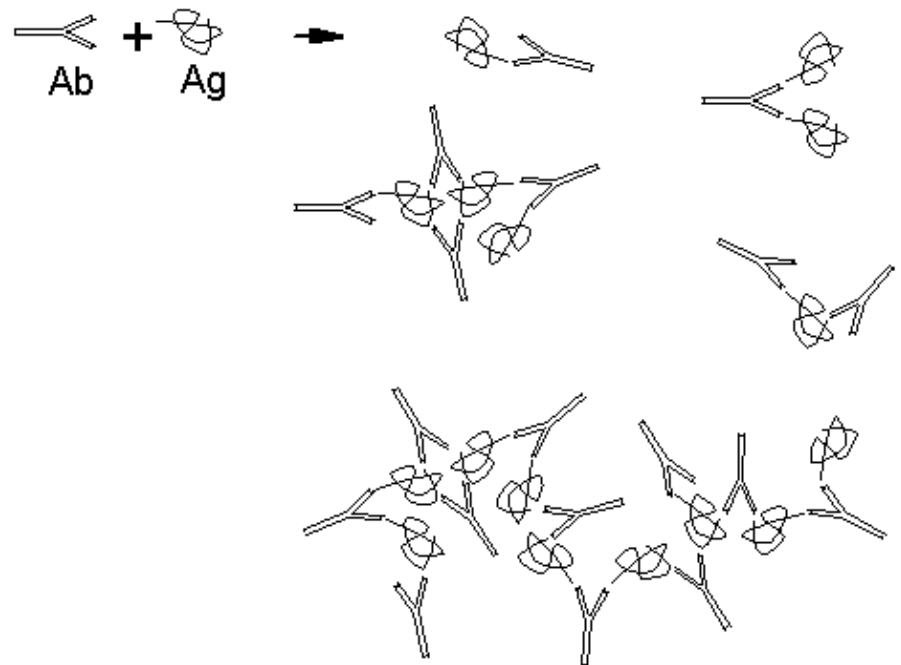
angiogram :

(Medicine) an X-ray picture obtained by angiography



- Prefixe : **anti-** :
- = against, opposed to
- Exp :
  - **Antitoxin** :  
an **antibody** that neutralizes a toxin,  
blood serum that contains a specific antibody

- **antibody** , noun (pl) -bodies :  
any of **various proteins** produced in the blood in response to the presence of **an antigen**.
- By becoming **attached** to **antigens**, can render them **harmless** or cause them to be **destroyed**



- **Antioxidant :**

**any substance that inhibits or retards oxidative deterioration of fats, oils, foods, petroleum products...etc.**