



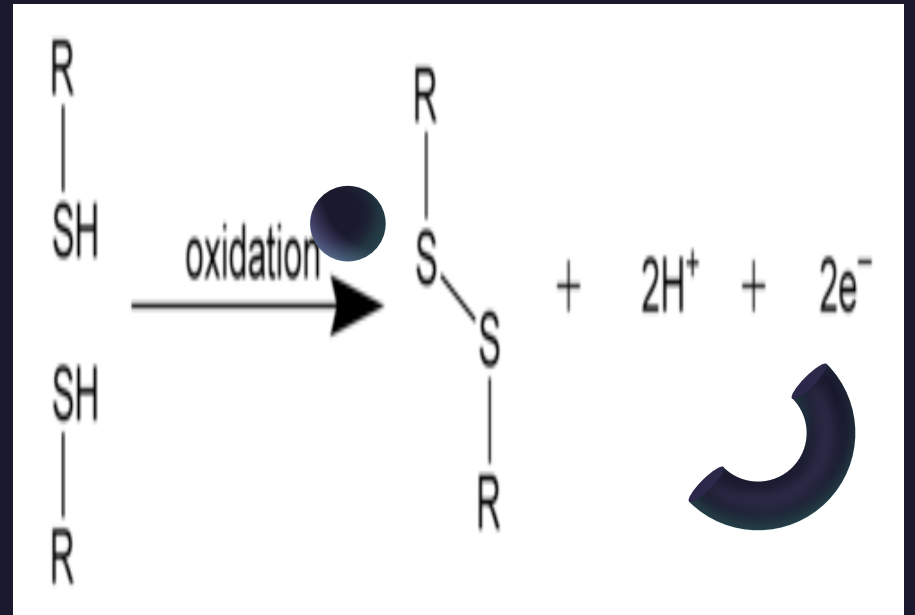
Only Your Hairdresser
Knows For Sure
A Lesson On Hair
Identification
Part1

- Forensic Science
- School Year 2021-2022
- Dr. Wardisiani
- jwardisiani@pths209.org

Bell Ringer- Forensic Science

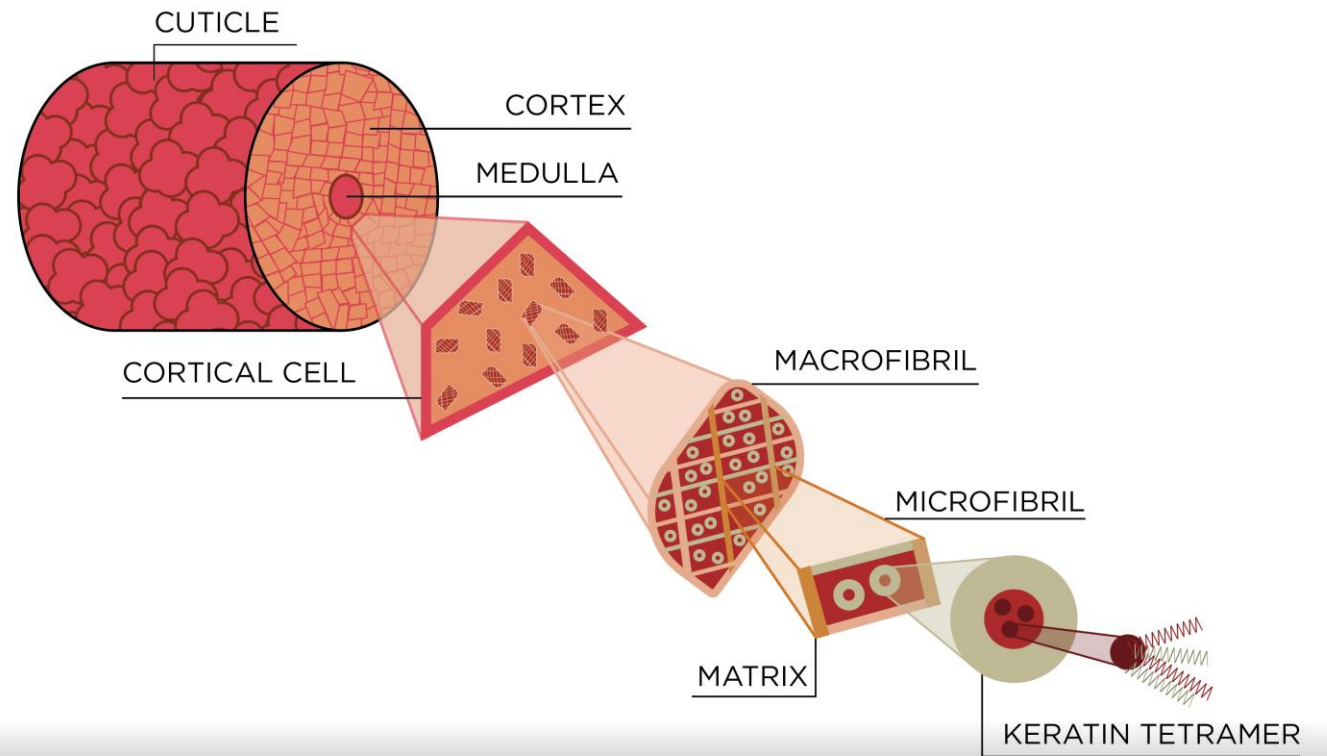
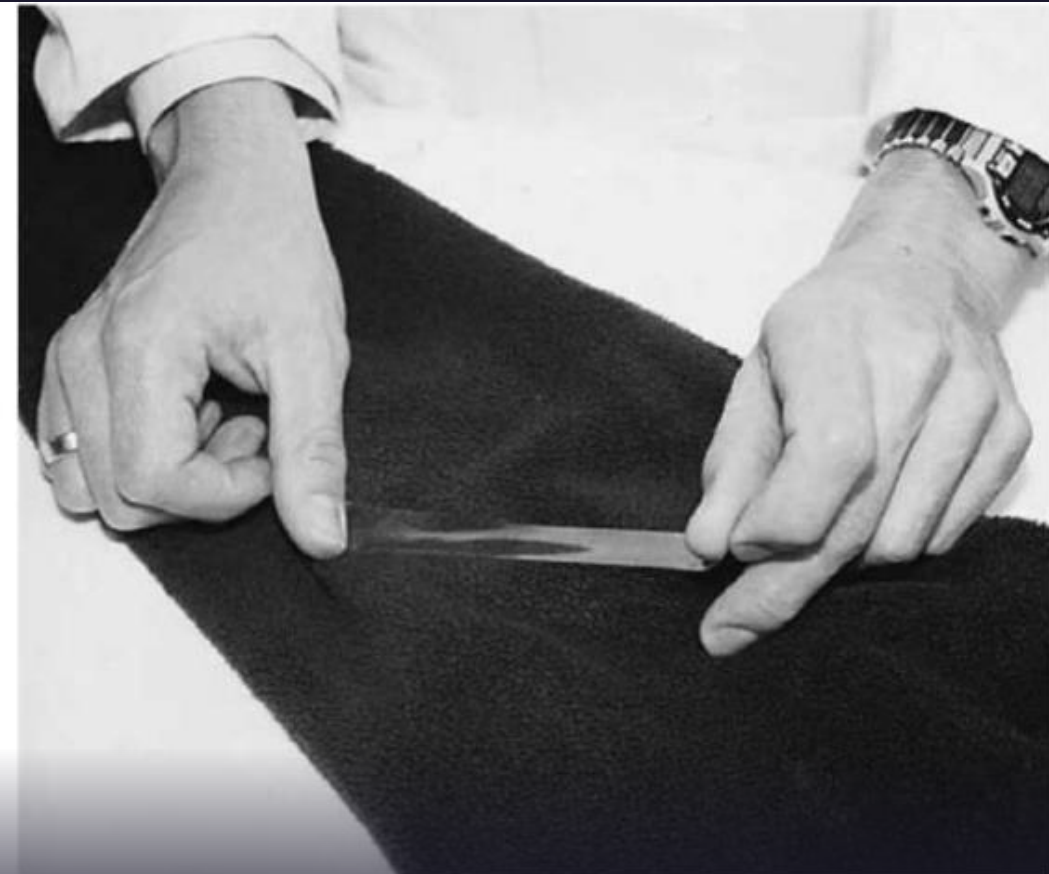


- What actually happens when you have your hair chemically straightened and/or permed?
- What causes that strong odor?



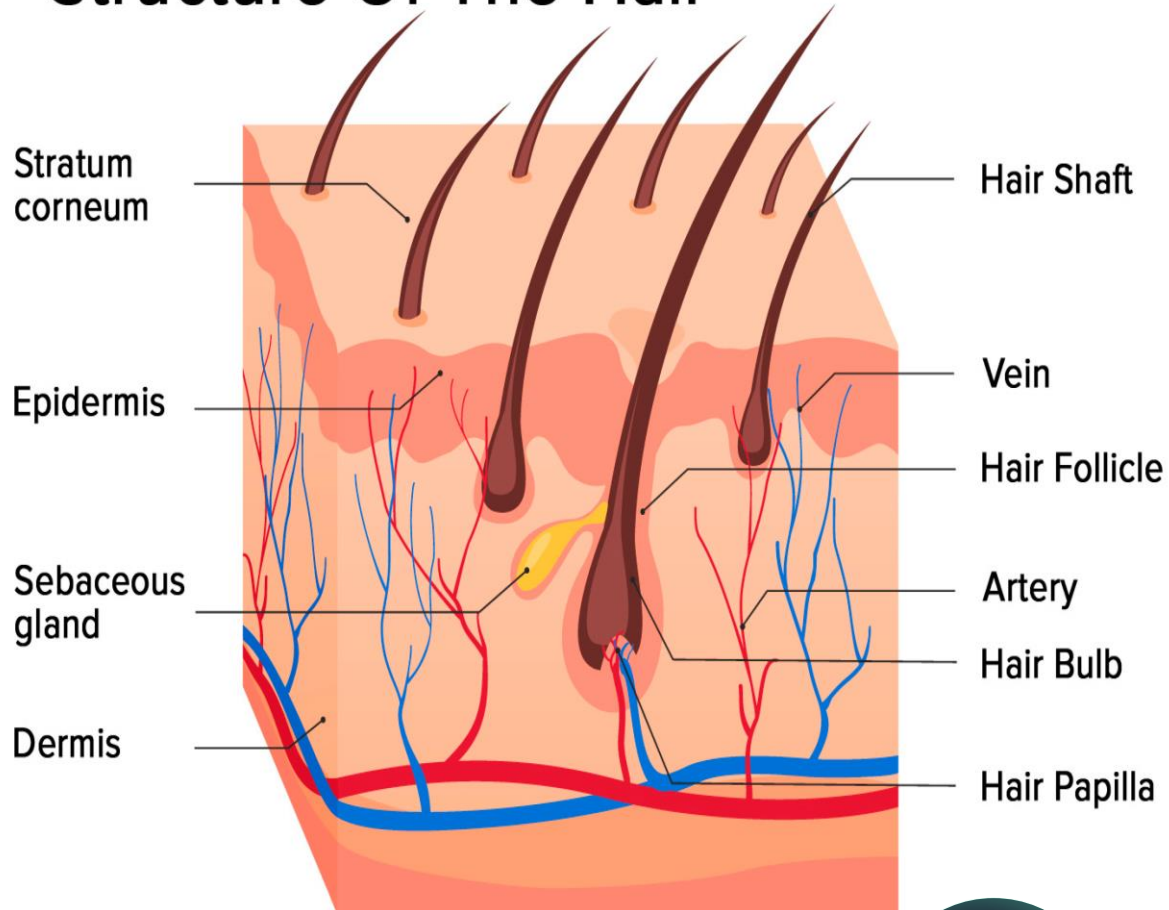
Introduction

- Hair recovered from a crime scene can be valuable to Forensic Scientist.
- Therefore, Crime scene technicians collect any hair that they find and send them to the lab for analysis.
- Forensic Scientists are familiar with hair structure and Chemistry.

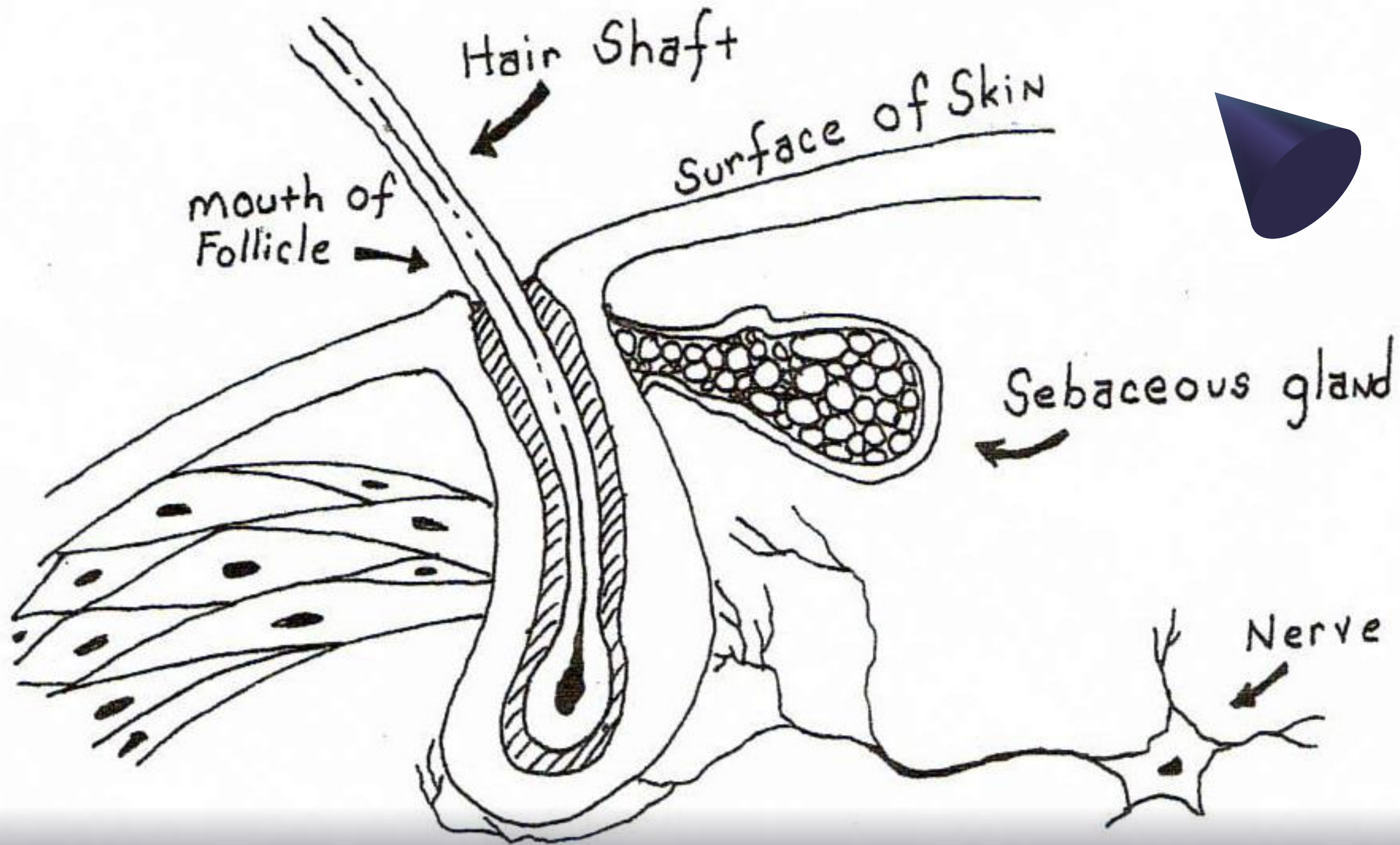


Follicle Full

Structure Of The Hair

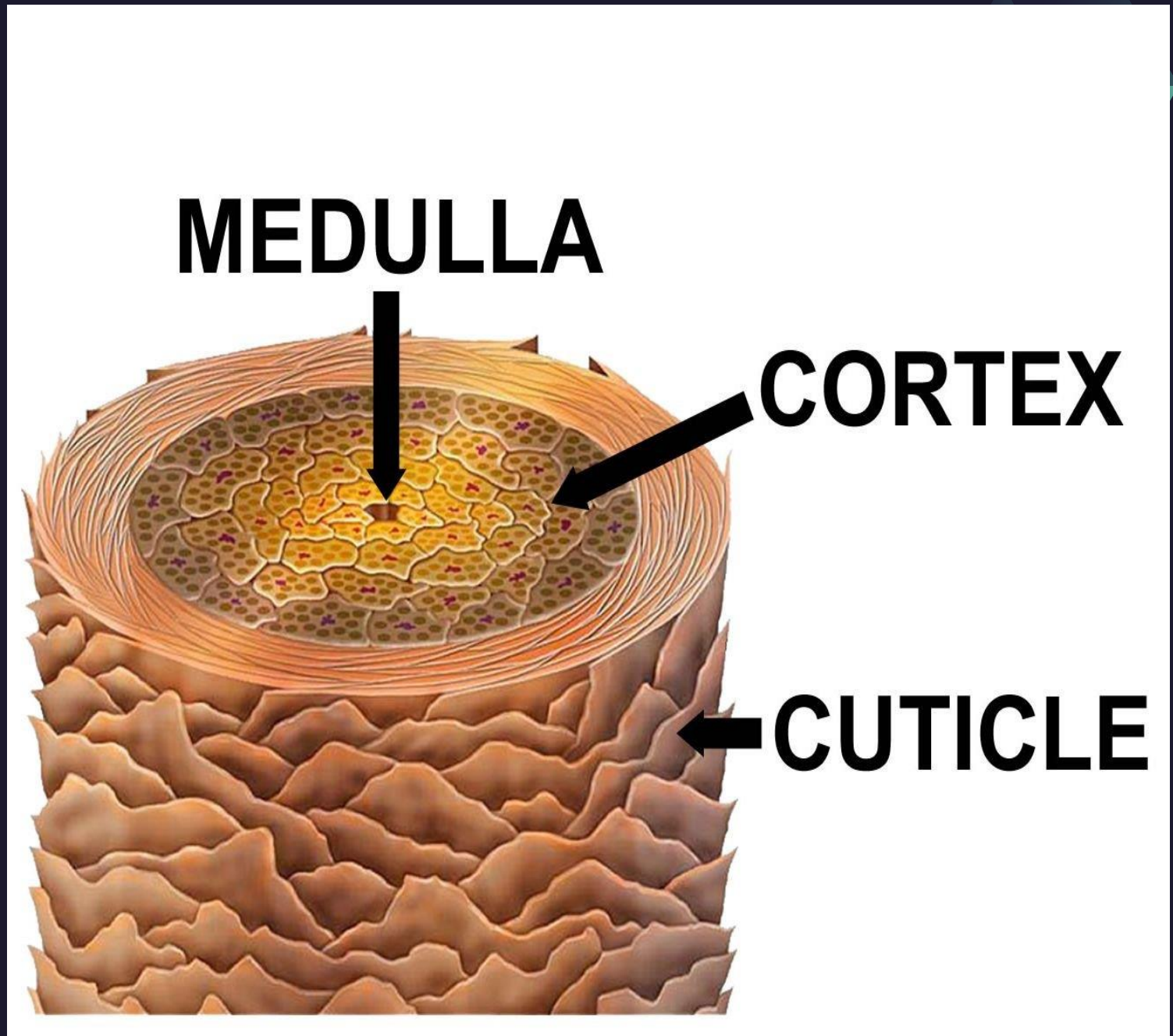


- Hair grows from follicles, or tiny pockets, in the skin.
- The entire surface of a mammal is covered with thousand of these follicles.
- Located beside each follicle is a small muscle that can make the hair stand upright.
- A nerve connects the follicles to the brain; that's why it hurts to pull a hair out.
- A sebaceous gland in the wall of the follicle produce sebum, an oil that is essential for normal hair and skin.
- The entire length of a hair includes the root, which is embedded in the skin follicle, and extends the length of the shaft to the hair tip.



Your Scales

- A hair is composed of three distinct layers: Cuticle, Cortex and Medulla.
- The cuticle is the hard outside covering that protects the inner layers of hair
- It is made of overlapping scales pointing towards to the tip. The scales are cells that have hardened and flattened.
- There are many different types and arrangements of cuticle scales, varying from loose, open scales to tight, firm scales.



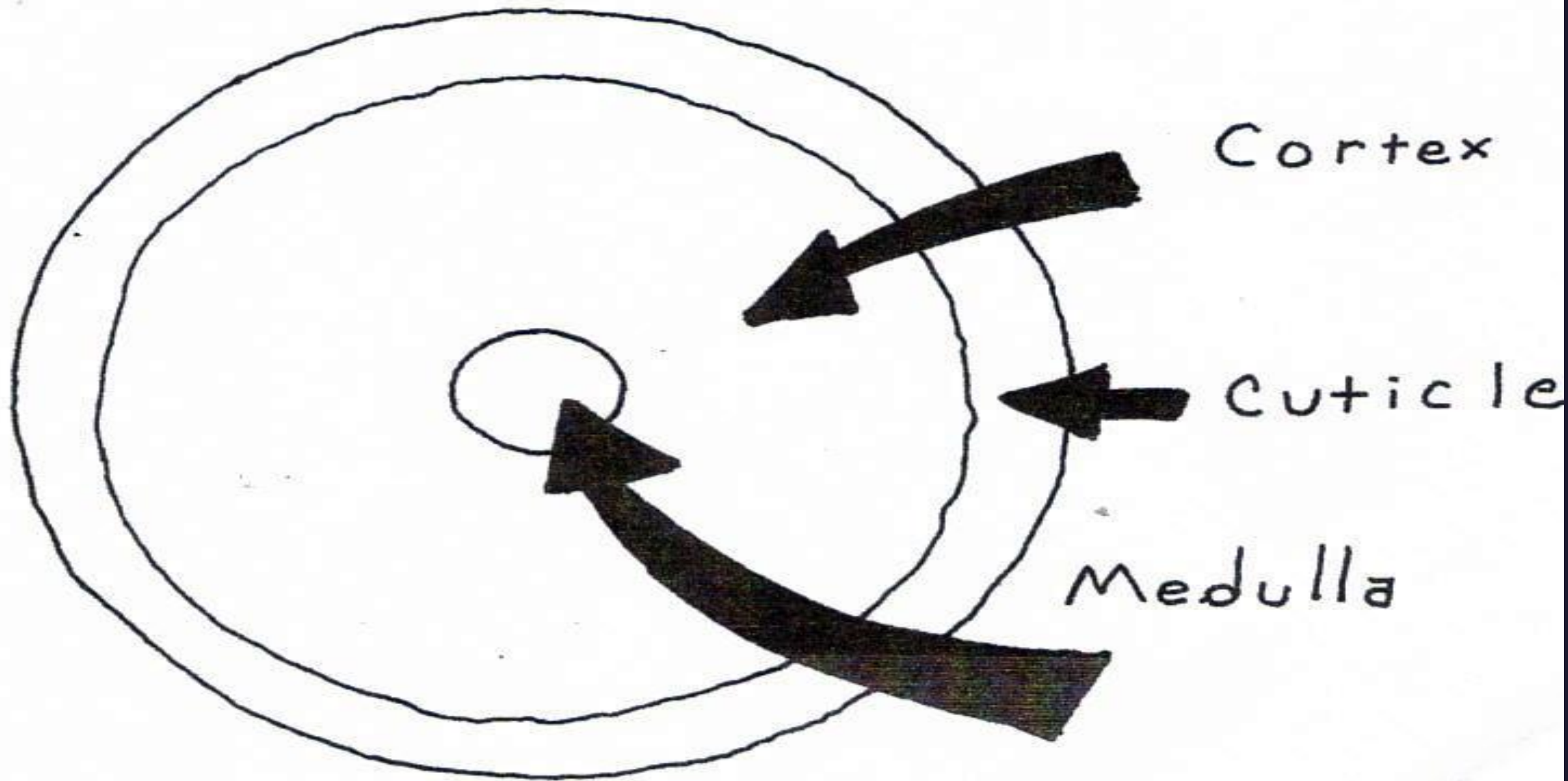


Figure 25. Hair is made of three layers.

Your Hair Color

- The cortex is made of cells within the cuticle.
- 75 to 90% of a human hair is composed of cortex. The cells contain the pigment that give hair its color.
- Forensic Scientists sometimes use color, shape and distribution of pigment granules to tell the difference between hair of two individuals.



Thank You
For Your
Attention!

Questions
OR
Comments

