



HAIR – A CREATED WONDER

by Lanny and Marilyn Johnson

“Ouch! You’re hurting my hair,” squealed Mary as her mother tried to gently comb the tangles out of her hair.

Mrs. Jones smiled and replied, “I know it hurts sometimes, however, the pain is not in your hair, but coming from the skin layer called the dermis.”

“What does my skin have to do with my hair?”

“Hair growth begins at the root which is inside a tube-like depression called a follicle (fol-ih-kul). The root makes cells from a protein called keratin (ke-ru-tin). These come together to form a strand of hair.¹

“As the hair begins to grow from the root, it pushes up and out of the follicle. Small blood vessels at the base of every follicle feed the hair root to keep it growing. The strand of hair that is found inside the follicle is said to be ‘alive’. Once the hair is pushed out of the follicle at the skin’s surface, however, the cells within the strand of hair are considered dead. Every hair you see on your body is made of dead cells. That is why it doesn’t hurt when you cut it.²

“Each hair strand has a protective outer layer called the cuticle. This is made of flattened dead cells that look like overlapping shingles on a roof. The hair follicle is also lined with

a cuticle, but its overlapping cells face the opposite direction as those on the shaft. As the hair grows the two cuticles lock it in place, making it impossible to pull out the hair without tearing out a large part of the follicle. When a hair is pulled out, the injured follicle is quickly repaired and begins to regrow new hair.”³

Mary frowned and said, “So that’s why it hurts. You’re pulling my hair out by the roots! But I am confused. If the hair is locked inside

the follicle, how is it pushed out as it grows?”

“Lining the hair follicle are thousands of desmosomes (dez-mo-som-s) that look like tiny buttons. These ‘buttons’ are quickly buttoned and unbuttoned in exact order, allowing the hair



Adapted from <https://boldbarber.com/hair-and-hair-types/>

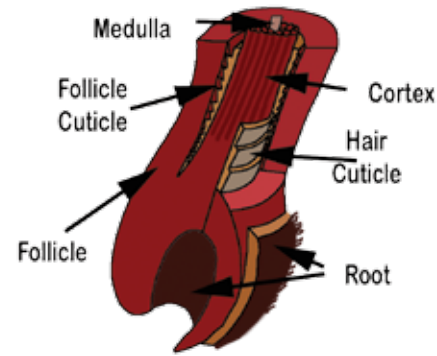
to slide out in a controlled way. As the strand of hair comes out of the skin, the cuticle lining the hair follicle (the lock) is digested with special chemicals.⁴

“You know, Mary, when we think about the incredible, complicated design of hair, I hope you are in awe of our Creator.”

INTERESTING THINGS ABOUT HUMAN HAIR

- All the hair follicles a person will ever have throughout his or her lifetime actually form when the fetus is only 5 months old.⁵
- Humans can grow hair everywhere except on lips, palms of the hands, and the soles of their feet.⁶
- Baby humans are born with about five million hair follicles. Each hair follicle contains its own muscle, nerve, and blood supply. Each follicle

HAIR LOCK DESIGN



Adapted from <https://answersingenesis.org/human-body/the-amazing-human-hair/>

grows a completely new hair about 20 times in a lifetime.⁷

- The human head can have between 90,000 and 150,000 hairs.⁸
- Everyone in this world loses about 50 to 100 strands of hair every single day. Hair has a lifespan of about 5 years. 90% of hairs are in a state of constant

growth.⁹

- Hair grows about 0.5 inches (.25 cm) per month, and 6 inches (15 cm) per year. Facial hair grows faster than any other type of body hair.¹⁰

- The growing period of hair is called anagen, the resting period is called catagen, and it sheds in the telogen period.¹¹

- A hair strand has three main parts. The cuticle is the outer part of a hair strand and forms from dead cells. Under the cuticle is the cortex which contains melanin that gives your hair its color. The medulla is the innermost part of a strand of hair. Its role is unknown at this point.¹²

- There are two types of hair: vellus and terminal. Vellus hair covers most of the body and is light-colored, fine, and short. Most of the time it is not even noticeable. Terminal hair is long, thick, and darker than vellus hair. The hair on our heads is terminal hair.¹³

- Balding sometimes occurs as we get older when some follicles that had been producing terminal hairs begin to replace them with almost invisible vellus hairs. So, you don’t actually lose hair as you age, it just gets smaller.¹⁴

- A single strand of hair can support up to 3 ounces (85 g) of weight. A whole head of hair can support up to 12 tons (10886 kg)... the weight of two grown elephants. Hair is stronger than a copper wire of the same diameter.¹⁵

- The tensile strength of your hair is close to that of steel. It only breaks after being stretched to 1.5 times its original length. Wet hair is even stronger and can stretch up to 70% of its original length.¹⁶
- The most common hair color in this world is black. The rarest is red.¹⁷
- The hair on your head keeps your head warm and provides a little cushioning for your skull. Eyelashes protect your eyes by decreasing the amount of light and dust that go into them. Eyebrows show feelings but also protect your eyes from sweat dripping down from your forehead.¹⁸
- Hair contains information about everything that has been in your bloodstream, such as medicine, drugs, minerals, and vitamins.¹⁹

Go to Answers for References

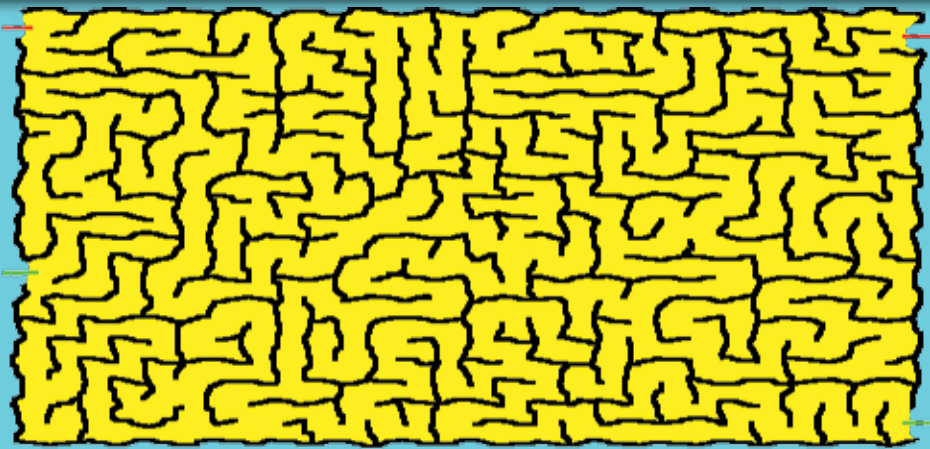
See if you can find the 21 hidden objects from the Hidden Object List below.



HIDDEN OBJECTS

1. Banana
2. Hot Dog
3. Candle
4. Carrot
5. Pencil
6. Strawberry
7. 2 Butterflies
8. Peach
9. Baseball Bat
10. Bottle with Message
11. Cheese
12. Screwdriver
13. Egg
14. Hair Clippers
15. Hairbrush
16. Green Apple
17. Grapes
18. 2 Mice
19. Blue Bird

Help the mice find the path through the maze to get to their cheese.



Puzzles by Lanny Johnson
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FOR ANSWERS GO TO: <http://www.discovercreation.org/kids/NewsletterAnswers.htm>