

Diameter of a Human Hair

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Edited by Glenn Elert -- Written by his students

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Bibliographic Entry	Result (w/surrounding text)	Standardized Result
Piezo Technology . Epson (UK) Ltd.	"45 microns, 2 times smaller than the diameter of a human hair and close to the limit of resolution for the human eye"	90 μm
Denny R's Homepage . Denny & Gayle Rossbach. Palmdale, CA.	"Diameter of a human hair inches: 0.001; centimeters: 0.00254"	25.4 μm
Why Choose a Water Treatment System? Aqua-Fresh Drinking Water Systems, Inc.	"Particulate contaminants including asbestos, rust, sediment, dirt, and scale as small as 0.2 microns (1/300th diameter of a human hair)."	60 μm
Hair - Important Facts About Hair . CAQTI Cosmetics, Inc.	"Flaxen hair is the finest, from 1/1500 to 1/500 of an inch in diameter ... and black hair is the coarsest, from 1/450 to 1/140 of an inch."	17–50 μm (flaxen) 56–181 μm (black)

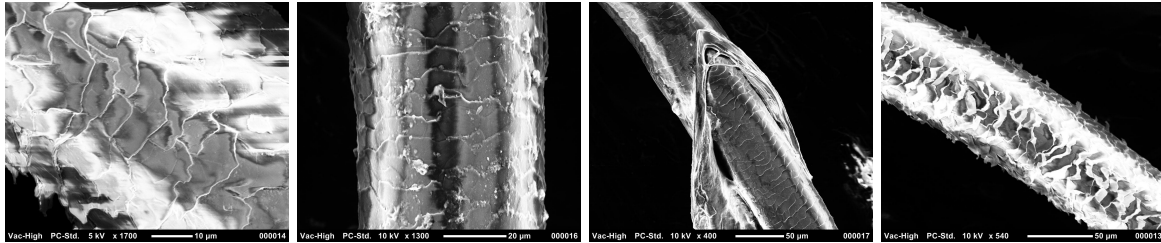
Hair can be found all over human body, except for the palms of hands and at the soles of feet. The purpose of hair is protective: the hairs on the body keeps a person warm, nose hairs prevent dust and dirt from entering the respiratory system, and eyebrows prevent sweat from entering the eyes.

The diameter of a human hair does not have a standard value since different people have different hair structures. Your genetic makeup can cause the width of your hair to differ from that of other people. Hair color is also a big factor. Black hair is thicker than is red hair. The weather can also affect the diameter of a hair strand. As the weather gets warmer, the diameter of body hair increases. Age is another factor. Babies and young children have finer hair than adults. As a person grows up, their hair becomes thicker and stronger. Another factor is that, the closer to the root of the hair, the thicker a strand of hair would be.

In my research, I have found the diameter of human hair to range from 17 to 181 μm (millionths of a meter).

Brian Ley -- 1999

Bibliographic Entry	Result (w/surrounding text)	Standardized Result
SEM image of the week: Only their hairdresser knows for sure. Mert Keçeli, Joanne Wen, Sara Saad, Glenn Elert. Midwood Science (7 November 2011).	[see images below]	60~80 μm



Student 1: 77 μm

Student 2: 60 μm

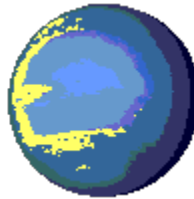
Student 2: 68 μm

Student 3: 71 μm

Editor's Supplement -- 2011

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