

## Topic Page: [Capillarity](#)

Definition: **capillarity** from *Hawley's Condensed Chemical Dictionary*

The attraction between molecules, similar to surface tension, which results in the rise of a liquid in small tubes or fibers or in the wetting of a solid by a liquid. It also accounts for the rise of sap in plant fibers and of blood in capillary (hair-like) vessels.

Summary Article: **capillarity**

From *The Columbia Encyclopedia*

or capillary action, phenomenon in which the surface of a liquid is observed to be elevated or depressed where it comes into contact with a solid. For example, the surface of water in a clean drinking glass is seen to be slightly higher at the edges, where it contacts the glass, than in the middle. Capillarity can be explained by considering the effects of two opposing forces: adhesion, the attractive (or repulsive) force between the molecules of the liquid and those of the container, and cohesion, the attractive force between the molecules of the liquid (see adhesion and cohesion). Adhesion causes water to wet a glass container and thus causes the water's surface to rise near the container's walls. If there were no forces acting in opposition, the water would creep higher and higher on the walls and eventually overflow the container. The forces of cohesion act to minimize the surface area of the liquid (see surface tension); when the cohesive force acting to reduce the surface area becomes equal to the adhesive force acting to increase it (e.g., by pulling water up the walls of a glass), equilibrium is reached and the liquid stops rising where it contacts the solid. In some liquid-solid systems, e.g., mercury and glass or water and polyethylene plastic, the liquid does not wet the solid, and its surface is depressed where it contacts the solid. Capillarity is one of the causes of the upward flow of water in the soil and in plants.

**APA**

Chicago

Harvard

**MLA**

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## APA

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## Chicago

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## Harvard

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## MLA

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