

Alveolar surface tension and surfactant

Attractive forces between liquid surfactant molecules result in surface tension. Surfactants disrupt these attractions, which increases compliance and therefore reduces breathing work. Otherwise, pressure would continue to flow from the small alveoli to larger ones. This helps prevent alveolar collapse and increases compliance, which reduces breathing work.

Surfactant is made of about 90% lipids and 10% proteins. The amount of surfactant is controlled by type II pneumocytes.

See also

Laplace law

References

Costanzo, L., 2019. *Physiology - Board Review Series*. 7th ed. Philadelphia: Wolters Kluwer, p.121.