

Breaking the Barrier:  
Tobacco's Effect on Lung Architecture  
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**Science for Alaska Lecture Series 2009**

A list of materials about this topic provided by Aldean Kilbourn,  
Geophysical Institute Keith B. Mather Library



**Internet Resources**

**GENERAL INFORMATION (ALL SITES ACCESSIBLE AS OF 1 FEBRUARY 2010)**

About.Com: Asthma | How Do the Lungs Work?

<<http://video.about.com/asthma/How-Lungs-Function.htm>>.

Breathing is a two-part process: inspiration and expiration. Learn what happens in your body when you take a breath. Excellent video to understand how the process works.

American Cancer Society | Questions About Smoking, Tobacco, and Health.

<<http://www.cancer.org/docroot/PED/content/>>.

American Cancer Society. 2009. 2009 Edition of the tobacco atlas catalogues catastrophic toll of tobacco worldwide.

<[http://www.cancer.org/docroot/MED/content/MED\\_2\\_1x\\_2009\\_Edition\\_Of\\_The\\_Tobacco\\_Atlas\\_Catalogues\\_Catastrophic\\_Toll\\_Of\\_Tobacco\\_Worldwide.asp?sitearea=MED](http://www.cancer.org/docroot/MED/content/MED_2_1x_2009_Edition_Of_The_Tobacco_Atlas_Catalogues_Catastrophic_Toll_Of_Tobacco_Worldwide.asp?sitearea=MED)>.

American Lung Association | Your Lungs.

<http://www.lungusa.org/your-lungs/>

(see sidebar for additional links and explanations)

Coppens, K.D. eHow | How To Do Just About Everything / Basics of Nicotine.

< [http://www.ehow.com/topic\\_6158\\_basics-nicotine.html](http://www.ehow.com/topic_6158_basics-nicotine.html)>.

Hassong, Athena. eHow| How To Do Just About Everything / How the Lungs Function

<[http://www.ehow.com/how-does\\_5434147\\_lungs-function.html](http://www.ehow.com/how-does_5434147_lungs-function.html)>.

Hopley, L., van Schalkwyk, J. The WorldWide Anaesthetist Pulmonary Page | Lung Function Fundamentals.

<<http://www.anaesthetist.com/icu/organs/lung/Findex.htm#lungfx.htm>>.

Very technical, but of interest to someone who is really into investigating the topic of how lungs function.

National Heart Lung and Blood Institute | How the Lungs Work

<[http://www.nhlbi.nih.gov/health/dci/Diseases/hlw/hlw\\_respsys.html](http://www.nhlbi.nih.gov/health/dci/Diseases/hlw/hlw_respsys.html)>.

National Heart Lung and Blood Institute | What Controls Your Breathing?

<[http://www.nhlbi.nih.gov/health/dci/Diseases/hlw/hlw\\_controls.html](http://www.nhlbi.nih.gov/health/dci/Diseases/hlw/hlw_controls.html)>.

National Heart Lung and Blood Institute | What Happens When You Breath?

<[http://www.nhlbi.nih.gov/health/dci/Diseases/hlw/hlw\\_when.html](http://www.nhlbi.nih.gov/health/dci/Diseases/hlw/hlw_when.html)>.

Includes animation video.

U.S. Dept of Health & Human Services | National Institutes of Health.  
<<http://health.nih.gov/>>.

U.S. Dept of Health & Human Services | National Institutes of Health | Lungs and Breath.  
<<http://health.nih.gov/category/LungsandBreathing>>.

WebMed / Lung Disease & Respiratory Health Center: Lung Function Tests.  
<<http://www.webmd.com/lung/lung-function-tests>>.

Wikipedia | Lung. <<http://en.wikipedia.org/wiki/Lung>>.  
Covers all air-breathing animals but gives detailed explanation with links and references for human beings and their lungs.



### Book and Journal Resources

- Affolter, M., Zeller, R. & Caussinus, E. 2009. Tissue remodeling through branching morphogenesis. *Nature Reviews Molecular Cell Biology*, 10, 831-842.
- Alakayak, J. & Knall, C. 2008. Mentholated and non-mentholated cigarettes alter transepithelial electrical resistance (TER) of CALU3 human bronchial epithelial cells. *Ethnicity and Disease*. 18 suppl. 1, 45- 46.
- Ewald, A.J., Brenot, A., Duong, M., Chan, B.S. & Werb, Z. 2008. Collective epithelial migration and cell rearrangements drive mammary branching morphogenesis. *Developmental Cell*, 14, 570–581.
- Metzger, R.J., Klein, O. D., Martin, G. L. & Krasnow, M. A. 2008. The branching programme of mouse lung development. *Nature*, 453, 745-751.
- Olivera, D.S., Boggs, S.E., Beenhouwer, C., Aden, J. & Knall, C. 2007. Cellular mechanisms of mainstream cigarette smoke-induced lung epithelial tight junction permeability changes in vitro. *Inhalation Toxicology*, 19, 13–22.
- Olivera, D., Knall, C., Boggs, S.E. & Seagrave, J. 2009. Cytoskeletal modulation and tyrosine Phosphorylation of tight junction proteins are associated with mainstream cigarette smoke Induced permeability of airway epithelium. *Experimental and Toxicologic Pathology*. In Press.
- Otten, A., Salter, D., & Knall, C. 2009. Cell culture forensics of Calu-3 – A human lung epithelial cell line. *Ethnicity and Disease*. 19 suppl. 3, 78-79.
- Wienberger, Cockrill, Mandel. 2008. Principles of Pulmonary Medicine. 5<sup>th</sup> edition. Maryland Heights, MO: Elsevier Science. 396p. Textbook.