



The Heights of Respiratory Physiology



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Zoom On Professor John B. West

Professor John B. West is a renowned respiratory physiologist and researcher. He joined the faculty of the University of California San Diego in 1969, where he still teaches first-year medical students. He is author of *Respiratory physiology - the essentials*, which has been translated into many languages, and is now in its 10th edition. His YouTube Lectures in Respiratory Physiology have attracted over 400,000 views and rave reviews. He is past president of the American Physiological Society, and was the founder Editor-in-Chief of the journal *High Altitude Medicine and Biology*. He has received numerous honours and awards from around the world for his research and teaching, and is the author of over 500 articles and 19 monographs.

What are your key areas of interest and research?

The key areas at the moment that I'm working on are high altitude and oxygen conditioning. I have a bit of a bee in my bonnet about that. It's something entirely new, which I think has a great future. I received criticism about it, but I believe it has a great future. In addition, I still look at pulmonary capillaries and what we call stress failure, which is what happens when you raise the pressure in the capillaries and you damage the walls. Also I'm very interested in gas exchange generally. I'm working on a device, where we look at expired gas in patients. There's nothing very fancy about it. It has simply oxygen and CO₂ analysers in it. But it's interesting because few people have really explored the potential of expired gas.

What are the major challenges in your field?

The most important challenge is COPD, which remains a terribly important and difficult disease. It's now the second leading cause of death in the United States. Although a great deal of research is being done on it, I don't believe that present methods of treatment have been terribly successful in prolonging quality of life.

Do you have a top management tip?

Not as such, but I've always thought that having a small group of people working together is very productive. I like having a small coherent group and believe this pattern has a great deal of merit.

What are your career highlights?

Firstly, the research we did leading to respiratory measurements on the top of Mount Everest. Second the measurements of the function of the lung in space, which we did for the first time with the NASA Programme. Finally, the effects of gravity on the lung, particularly the distribution of blood flow.

If you have hadn't chosen this career path what would you have become?

At school I was very interested in high energy physics and seriously thought of going into that. I don't know why I went into medicine. By the way, I had to make the decision when I was about 16 which is far too early. My father was an orthopaedic surgeon and my mother was a nurse; maybe they had something to do with it. Anyway, I found medicine a very satisfying career.

What are your interests outside work?

I am very fond of baroque music, and I'm on the board of a baroque music group here in San Diego.

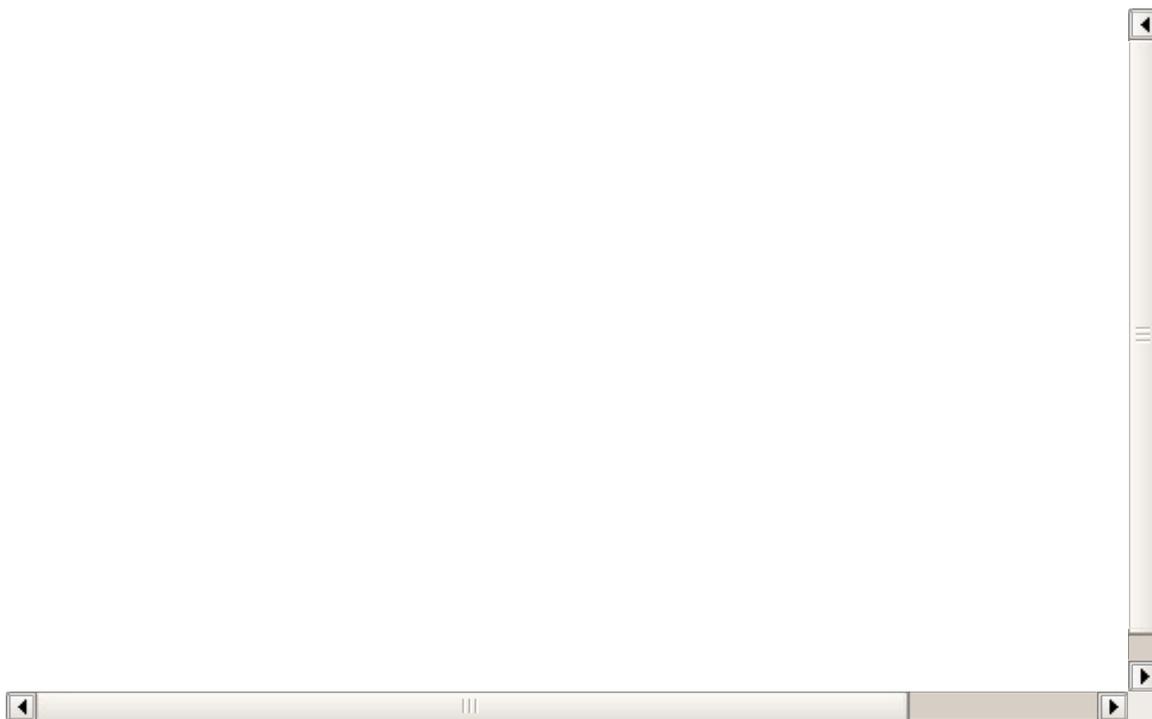
What is your favourite quote?

It is on my office wall, and it is from Joseph Priestley, who merits a special place in the history of [respiratory physiology](#).

"Human happiness depends chiefly upon having some object to pursue, and upon the vigour with which our faculties are exerted in the pursuit" - Joseph Priestley, 1766

Watch

Lectures in Respiratory Physiology, John B West MD, PhD



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