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The Coal-Asthma Connection

By [Norman Rogers](#)

The organized enemies of coal are at bottom enemies of carbon dioxide (CO₂). Enemies of CO₂ are believers in the greenhouse gas catastrophic global warming hypothesis. That hypothesis is and always has been poorly supported by evidence. The “evidence” is really computer models that make predictions. Those predictions have failed to materialize.

Coal is the hydrocarbon fuel with the most carbon and the least hydrogen. Thus, when coal is burned as fuel, more CO₂ is released to the atmosphere than would be the case if natural gas were used. The main use of coal is generating electricity. Natural gas is the main alternative to coal for electricity. For the same amount of electricity, using the most efficient technology, coal emits about 2.5 times as much CO₂ as natural gas. This is not only due to coal having a greater proportion of carbon, but also to the fact that so-called combined cycle natural gas plants are 50% more efficient than coal plants. The hydrogen in hydrocarbon fuels turns into water (H₂O) when the fuel is burned. Liquid hydrocarbon fuels, such as diesel fuel, are rarely used for large-scale electricity production because they are too expensive.

Historically, coal has been a much cheaper fuel than natural gas. But, due to the advent of fracking, plentiful supplies of natural gas have driven down the price of gas to the point where it is often competitive with coal for electricity generation.

But the low price of natural gas may be temporary. The price may increase as facilities for the export of natural gas are constructed, expanding the market beyond North America. In the long term it may be unwise to lock the electricity sector into natural gas. Natural gas is a premium fuel. It naturally burns cleanly and it can be used in many applications, including transportation, for which coal is not practical. On the other hand, the U.S. is blessed with vast coal reserves that could last for hundreds of years.

The greatest enemy of coal is the Sierra Club. The Sierra Club is a big business with three million members and supporters, and a budget of around \$100 million per year. The Club has a long-running [propaganda campaign](#) intended to destroy the coal industry.

The threat of global warming is no longer convincing to most of the general public. There has been [little or no global warming for two decades](#) in spite of increasing concentrations of CO₂ in the atmosphere. Increasing the amount of CO₂ in the atmosphere helps crops to [grow faster](#) with less water. CO₂ is for plants like oxygen is for animals.

Rather than honestly say that they want to shut down coal because the CO₂ emissions will cause global warming (that they now call climate disruption), the Club has made many dubious claims to the effect that burning coal creates medical problems, especially causing and aggravating asthma, especially among children. A search of the Club's [Beyond Coal](#) website brings up eight pages of claims linking coal to asthma. A [recent book](#) by billionaire Michael Bloomberg and former Sierra Club president, Carl Pope, also harps on the supposed coal-asthma connection.

The coal-asthma connection is basically made-up science. Experts on asthma say that they don't know [what causes asthma](#). The existence of dubious correlations underlines the lack of knowledge. For example, [planned caesarian birth](#) is associated with childhood asthma; but not unplanned caesarian birth. People who have asthma seem to have attacks triggered by a wide variety of circumstances, including such things as the weather, dust mites, air pollution, and stress. It is known that there are genetic factors involved.

An [interesting study](#) compared immigrant Chinese adolescents in Vancouver, Canada, with Chinese adolescents in three big cities in China, and Chinese adolescents born in Vancouver. Vancouver has extraordinarily clean air, while the Chinese cities have very dirty air and massive use of coal electricity. But asthma

rates are lowest in China, intermediate among immigrants, and highest among Chinese born in Vancouver. The asthma rate for Chinese born in Vancouver was more than double the rate for Chinese living in the dirty, coal friendly, Chinese cities.

The [hygiene hypothesis](#) is that asthma is the result of leading an excessively clean lifestyle without early life exposure to various allergens. Then when the allergens are encountered later in life the immune system overreacts. That might explain the Vancouver study cited above.

Modern coal plants are very clean, something not highlighted by the Sierra Club. I had occasion to visit the [John W. Turk, Jr. power plant](#) near Fulton, Arkansas. This modern plant, completed in 2012 operates very efficiently producing electricity at low cost and with very low pollution. Nothing can be seen exiting the smokestack when operating at full power. Pollution control systems remove the major pollutants: sulfur, particulate matter, mercury, and oxides of nitrogen. The minor pollution that escapes removal is dispersed by the high smokestack and cleaned by natural purification and sequestration processes.



Instead of telling the truth about coal pollution, the Sierra Club prints misleading photos of smokestacks and cooling towers backlit by the sun so as to make it appear that harmless steam is black smoke.



If a commercial company makes up lies to sell its products there are many legal channels for correcting the situation. For example, pharmaceutical companies suffer massive lawsuits if they slightly misrepresent the efficacy of their products. There are many government agencies dedicated to protecting the

public from commercial misrepresentation. Additionally, free speech does not legally exist for commercial companies. The system is certainly not perfect; the regulated often “capture” the regulators. But, in the environmental area, the government agencies charged with protecting the environment often work hand in hand with the scare campaigns run by environmental groups. The environmental groups often sue the government and commercial companies, but rarely suffer lawsuits themselves for the many lies they tell.

Unfortunately it is easier to make up scare stories than it is to refute them. The Sierra Club and many similar organizations make up stories with a scientific gloss. In order to refute the scare stories, one has to objectively study the evidence and bore the reader with complex arguments. By means of lies and distortions designed to raise the maximum amount of money and membership, environmental organizations can send the country down the wrong course, impoverishing the economy, and doing next to nothing to improve the environment or American lives. Substituting [windmills for coal plants](#) is an excellent example of this.

Norman Rogers writes often about global warming and environmental matters. He has a [website](#).