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- [Norms](#)
- [CO2 effects](#)
- [Causes](#)
- [Diseases](#)
- [Symptoms](#)
- [Techniques](#)
- [Buteyko](#)
- [Learn here](#)
- [Courses](#)
- [Books](#)
- [Fitness](#)
- [Others](#)

Hyperventilation Causes

Causes of hyperventilation are seriously misunderstood by the mainstream medicine. Internet (Wikipedia, etc.) and professional medical sources grossly misrepresent the prevalence of hyperventilation primarily limiting it to such cases as lung injuries, extreme stress, diabetic ketoacidosis, head injuries and stroke. In reality research provides a different view on presence and prevalence of [hyperventilation](#) (breathing more air than the medical norm).

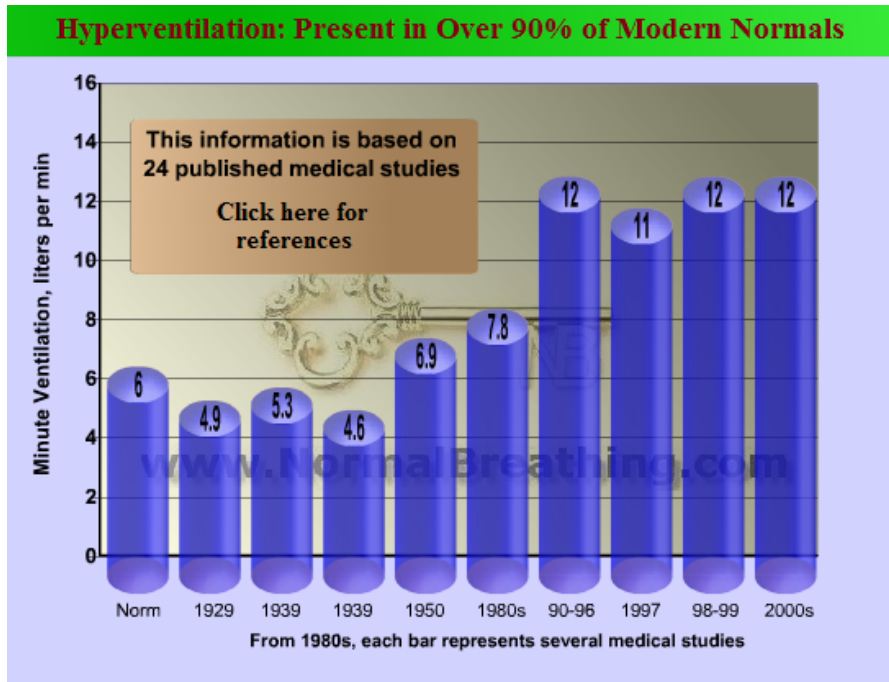
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Minute ventilation rates (chronic diseases)

Condition	Minute ventilation	Number of people	All references or click below for abstracts
Normal breathing	6 l/min	-	Medical textbooks
Healthy Subjects	6-7 l/min	>400	Results of 14 studies
COPD	14 (+-2) l/min	12	Palange et al, 2001
COPD	12 (+-2) l/min	10	Sinderby et al, 2001
COPD	14 l/min	3	Stulbarg et al, 2001

Cancer	12 (+-2) l/min	40	Travers et al, 2008
Heart disease	15 (+-4) l/min	22	Dimopoulou et al, 2001
Heart disease	16 (+-2) l/min	11	Johnson et al, 2000
Heart disease	12 (+-3) l/min	132	Fanfulla et al, 1998
Heart disease	15 (+-4) l/min	55	Clark et al, 1997
Heart disease	13 (+-4) l/min	15	Banning et al, 1995
Heart disease	15 (+-4) l/min	88	Clark et al, 1995
Heart disease	14 (+-2) l/min	30	Buller et al, 1990
Heart disease	16 (+-6) l/min	20	Elborn et al, 1990
Pulm hypertension	12 (+-2) l/min	11	D'Alonzo et al, 1987
Asthma	13 (+-2) l/min	16	Chalupa et al, 2004
Asthma	15 l/min	8	Johnson et al, 1995
Asthma	14 (+-6) l/min	39	Bowler et al, 1998
Asthma	13 (+-4) l/min	17	Kassabian et al, 1982
Asthma	12 l/min	101	McFadden, Lyons, 1968
Cystic fibrosis	15 L/min	15	Fauroux et al, 2006
Cystic fibrosis	10 L/min	11	Browning et al, 1990
Cystic fibrosis*	10 L/min	10	Ward et al, 1999
CF and diabetes*	10 L/min	7	Ward et al, 1999
Cystic fibrosis	16 L/min	7	Dodd et al, 2006
Cystic fibrosis	18 L/min	9	McKone et al, 2005
Cystic fibrosis*	13 (+-2) l/min	10	Bell et al, 1996
Cystic fibrosis	11-14 l/min	6	Tepper et al, 1983
Diabetes	12-17 l/min	26	Bottini et al, 2003
Diabetes	15 (+-2) l/min	45	Tantucci et al, 2001
Diabetes	12 (+-2) l/min	8	Mancini et al, 1999
Diabetes	10-20 l/min	28	Tantucci et al, 1997
Diabetes	13 (+-2) l/min	20	Tantucci et al, 1996
Sleep apnea	15 (+-3) l/min	20	Radwan et al, 2001
Liver cirrhosis	11-18 l/min	24	Epstein et al, 1998
Hyperthyroidism	15 (+-1) l/min	42	Kahaly, 1998

Dozens more medical studies prove the same fact: not only people with chronic disease, but nearly all so called "normal subjects" breathe about 12 L/min (double the medical norm) - see the graph with historical changes in breathing below.



Since over 90% of the modern population have chronic hyperventilation hidden in the modern lifestyle. The aspects of the modern lifestyle that represent causes of hyperventilation are: supine sleep, mouth breathing, exercise with mouth respiration, laziness, overeating, oversleeping, overheating, slouching, addictions, and many other "innovations" that intensify basal breathing (or breathing at rest) and decrease body-oxygen content.

Russian medical doctors practicing the Buteyko breathing technique have investigated the causes of hyperventilation for more than 4 decades. They suggested that the main cause of hyperventilation is lack of physical exercise with nose breathing. (Note that nasal breathing during physical activity was very common some 80-100 years ago and before that even among competing athletes.)

The search for hyperventilation causes is easy if we consider medical studies related to historical changes in breathing rates (minute ventilation) in normal subjects during the last 80 years.

Only 70-80 years ago, as this graph (based on 24 medical studies) testifies, breathing of ordinary people (so called "normal subjects") was very different from breathing of modern people. Modern people



breathe about 2-3 times more air. Modern people also breathe about twice more than the medical norm for breathing. (Click on the graph to see and read all 24 references.)

Main hyperventilation causes

Modern civilization has brought about some negative changes affecting our breathing and health, which cause hyperventilation in modern populations. Among main causes of hyperventilation are abnormal changes in our lifestyle in the areas of physical exercise, diet, sleep, rest and relaxation, thermoregulation, talking, and many others. These causes of hyperventilation are considered on separate pages:

* [Lack of Earthing](#) or electrical connection with Earth that causes shortage of electrons leading to abnormal inflammatory response, ineffective nerve and muscle function and hyperventilation

* [Sedentary lifestyle](#) - Sedentary lifestyle causes reduced brain and body oxygen levels. This leads to poor physical fitness and reduced desire to exercise or even move around

* [Mouth breathing](#) - Mouth breathing was a socially unacceptable habit and its CO₂- and nitric oxide-related effects affect all cells and organs of the human body

* [Sleep factors](#) - Our sleep conditions drastically deteriorated due to worsened air quality, introduction of soft beds, warm blankets, sleeping on one's back and mouth breathing during sleep

* [Psychological stress](#) - While people in the past had the same magnitude and amount of stress, modern people, due to chronic hyperventilation, have reduced abilities to face their life challenges

* [Overeating](#) - While food was scarce in the past, current abundance of junk food, modern advertisement techniques, and social overeating cause devastating effects on breathing causing chronic hyperventilation

* [Overheating](#) - High temperatures indoors, excessive clothing, wearing warm clothes indoors, overheating of children are among the causes of hyperventilation

* [Lack of nutrients](#) - Food and meals were simpler and more natural before the advance of modern agricultural (-cultural?) methods, while junk food is one of the causes of hyperventilation

* [Toxins and pollution](#) - These days they can come from air, food, and water

* [Stop slouching](#) - Old movies and photos show that straight spine (for diaphragmatic breathing and normal blood oxygenation - 98%) was the



norm 1-2 centuries ago. Appearance of sofas, couches, armchairs, and modern chairs with negative incline (knees are higher than buttocks) causes slouching and leads to chest breathing promoting hyperventilation

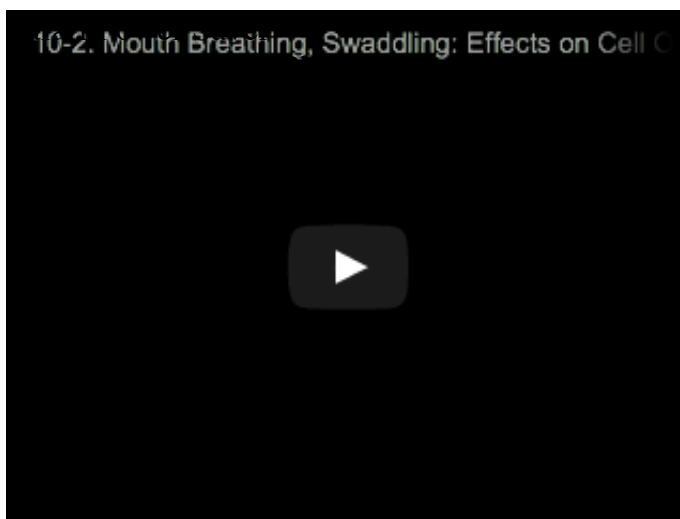
* [Talkativeness](#) - People used to be less talkative some decades ago, while modern people are very eager to "express" themselves

* [Singing](#) - Why do singers die early? - Overbreathing reduces their body O₂ and leads to possible addictions, health problems.

* [Swaddling babies: when and why](#) - Swaddling was one of the ancient wise traditions that has been lost for decades, but, thanks for recent medical research and trials, it is again encouraged by official mainstream medicine

* [Other factors](#).

All these factors leading to hyperventilation are discussed in more detail on web pages of this Section. Note that these are the most common causes of abnormal breathing. In addition, people often have many other, more personal factors that can intensify their breathing. They are considered in [Learning](#) Section of this website, where one can find out more complete practical instructions related to healthy and risk lifestyle factors and related topics.



This YouTube video (there are several others) considers some [causes of hyperventilation](#).

Hyperventilation causes are individual and can vary over time for the same person. For example, a healthy athletic young man, after graduation, may become less active physically. His breathing gets heavier and the morning CP drops to about 20 s. After some years he starts to

People in the past. Do old movies and films show that people's breathing pattern in the past was different? 1. People kept their mouths shut. 2. People spent hours while reading, speaking, and working in the correct

sleep on his back. ... [Read more](#)

posture... [Read more ...](#)

How is it possible that a human being, one of the smartest species on Earth, can kill himself, and over 90% people die this way, by overbreathing? Is nature so silly to create us this way? In order to answer these questions we need to consider [changes in air composition on Earth](#) ...

Since primitive air had very little O₂, our evolutionary predecessors could get more oxygen in tissues only by breathing more. Could it be so that this was the reason why [hyperventilation became the main reflex or drive of the human organism?](#) ...

Prevalence, symptoms and treatment of hyperventilation

Prevalence of hyperventilation is very high. More than 90% of the sick and normal subjects breathe over 10 L/min, while the medical norm is only 6 L/min. Healthy people, however, have only about 6-7 L/min ... Read more:

[Prevalence of hyperventilation](#)

Common **symptoms of hyperventilation** are: anxiety, bronchospasm, constipation, coughing, muscle cramps, nasal congestion, sighing, shortness of breath, angina pain, ... Read more:

[Symptoms of hyperventilation](#)

Successful **treatment of hyperventilation** is based on those breathing exercises that reduce minute ventilation at rest and increase alveolar CO₂ levels. Correction of lifestyle risk factors is necessary too. More info:

[Treatment of hyperventilation](#)

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