

Inhalation

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Inhalation is the movement of air from the external environment, through the air ways, into the alveoli during breathing. Inhalation begins with the onset of contraction of the diaphragm, which results in expansion of the intrapleural space and an increase in negative pressure according to Boyle's Law. This negative pressure generates airflow because of the pressure difference between the atmosphere and alveolus. Air enters, inflating the lung through either the nose or the mouth into the pharynx and trachea before entering the alveoli. Other muscles that can be involved in inhalation include: * External intercostal muscles * Scalene muscles * Sternocleidomastoid muscle * Trapezius muscle ([From the Wikipedia article Inhalation.](#))



Recent Publications on Inhalation:

- [Blood and Urinary Concentrations of Salbutamol in Asthmatic Subjects.](#)
PURPOSE:: Data on blood and urinary concentrations of salbutamol after... 21st November, 2009
1Respiratory and Allergy Research Unit, Bispebjerg Hospital, Copenhagen,- Med Sci Sports Exerc. 2009 Nov 13. ([DOI Direct Link](#))
- [Acute Effects of Beclomethasone on Hyperpnoea-Induced Bronchoconstriction.](#)
PURPOSE:: The aim of this study was to assess if a single high dose of... 21st November, 2009
1Department of Respiratory and Sleep Medicine, Royal Prince Alfred- Med Sci Sports Exerc. 2009 Nov 13. ([DOI Direct Link](#))
- [Responses to inhaled long-acting beta-agonist and corticosteroid according to COPD subtype.](#)
RATIONALE: Chronic obstructive pulmonary disease (COPD) is a complex and... 21st November, 2009
Division of Pulmonary and Critical Care Medicine, Department of Internal- Respir Med. 2009 Nov 16. ([DOI Direct Link](#))
- [Health risk assessment of heavy metal exposure to street dust in the zinc smelting district, Northeast of China.](#)
Heavy metal contamination in the street dust due to metal smelting in the... 21st November, 2009
Northeast Institute of Geography and Agricultural Ecology, Chinese Academy- Sci Total Environ. 2009 Nov 17. ([DOI Direct Link](#))
- [Anti-inflammatory effects of formoterol and ipratropium bromide against acute cadmium-induced pulmonary inflammation in rats.](#)
In this study, the anti-inflammatory properties of formoterol and... 21st November, 2009
Department of Physiology, Shanghai Jiaotong University School of Medicine,- Eur J Pharmacol. 2009 Nov 16. ([DOI Direct Link](#))
- [Effects of CO\(2\) inhalation exposure on mice vomeronasal epithelium.](#)
Nasal epitheliums are the first sites of the respiratory tract in contact... 20th November, 2009
Laboratoire de Neurosciences, Universite de Franche-Comte, Place Leclerc,- Cell Biol Toxicol. 2009 Nov 20. ([DOI Direct Link](#))

- [1-Methyl-3-octylimidazolium Chloride-Sorption and Primary Biodegradation Analysis in Activated Sewage Sludge.](#)
*Ionic liquids (ILs) are known to be non-volatile and thus to have low...*20th November, 2009
Department of Chemical Technology, Chemical Faculty, Gdansk University of- *Molecules*. 2009 Nov 2;14(11):4396-4405. ([DOI Direct Link](#))
- [The Relationships between Adverse Events, Early Antecedents, and Carbon Dioxide Reactivity as an Intermediate Phenotype of Panic Disorder. A General Population Study.](#)
*Background: Although adverse events have been consistently described to...*20th November, 2009
Department of Psychology, 'Vita-Salute' San Raffaele University, Milan,- *Psychother Psychosom*. 2009 Nov 18;79(1):48-55. ([DOI Direct Link](#))
- [Inhaled Ammonium Persulphate Inhibits Non-Adrenergic, Non-Cholinergic Relaxations in the Guinea Pig Isolated Trachea.](#)
*Background: Persulphates can act both as irritants and sensitizers in...*20th November, 2009
Department of Preventive, Occupational and Community Medicine, University- *Respiration*. 2009 Nov 18. ([DOI Direct Link](#))
- [Assessment of radiological risk factors in the Zonguldak coal mines, Turkey.](#)
*Radon concentrations in the working sections of the Zonguldak coal mines...*20th November, 2009
Department of Physics, Faculty of Science and Letters, Istanbul Technical- *J Radiol Prot*. 2009 Nov 18;29(4):527-534. ([DOI Direct Link](#))
- [Inhalation performance of pollen-shape carrier in dry powder formulation with different drug mixing ratio. Part 1: Comparison with lactose carrier.](#)
*In this study, the drug delivery performance of pollen-shape...*20th November, 2009
School of Chemical and Biomedical Engineering (SCBE), Nanyang- *Int J Pharm*. 2009 Nov 13. ([DOI Direct Link](#))
- [Oxidative stress and apoptosis induced by nanosize titanium dioxide in PC12 cells.](#)
*The nanosized titanium dioxide (nano TiO(2)) is produced abundantly and...*20th November, 2009
The Key Laboratory of Bioactive Materials, Ministry of Education, College- *Toxicology*. 2009 Nov 13. ([DOI Direct Link](#))
- [Effects of inhalable particulate matter on blood coagulation.](#)
*Background: Particulate matter (PM) exposure has been linked to increased...*20th November, 2009
Department of Clinical and Biological Sciences, University of Insubria,- *J Thromb Haemost*. 2009 Nov 17. ([DOI Direct Link](#))
- [Development of an inhalation physiologically based pharmacokinetic \(PBPK\) model for 2,2,4-trimethylpentane \(TMP\) in male Long-Evans rats using gas uptake experiments.](#)
*2,2,4-Trimethylpentane (TMP) is a volatile colorless liquid used primarily...*20th November, 2009
Integrated Systems Toxicology Divison, National Health and Environmental- *Inhal Toxicol*. 2009 Dec;21(14):1176-1185. ([DOI Direct Link](#))
- [Nanoscale and Fine Zinc Oxide Particles: Can in Vitro Assays Accurately Forecast Lung Hazards following Inhalation Exposures?](#)
*The development of accurate in vitro screening assays to assess lung...*20th November, 2009
DuPont Haskell Global Centers for Health and Environmental Sciences,- *Environ Sci Technol*. 2009 Oct 15;43(20):7939-7945. ([DOI Direct Link](#))

BioNews Results for Inhalation

- [PHARMACEUTICAL: High-speed video quantifies drug delivery performance](#)
Vision Systems Design: Nov 21 2009 2:36AM Matching: inhalation
- [Exploring Powder Dispersion For Inhaled Drug Applications](#)
Bioresearch Online: Nov 11 2009 1:11PM Matching: inhalation
- [Exploring Powder Dispersion For Inhaled Drug Applications](#)

- Pharmaceutical Online: Nov 11 2009 12:58PM Matching: inhalation*
- [How Secondary Smoke Causes Heart Disease](#)
Associated Content: Nov 10 2009 11:50PM Matching: inhalation
 - [Malvern Expert to Speak at Particle Sizing Conference in December](#)
Research & Development: Nov 10 2009 12:56PM Matching: inhalation
 - [New Published Study Shows Masimo Rainbow SET\(R\) Pulse CO-Oximetry\(TM\) Reliably Determines Carbon Monoxide Level](#)
Medical News Today: Nov 6 2009 12:13PM Matching: inhalation
 - [Study: Diagnostic Reliably Determines Carbon Monoxide Levels](#)
FDA News: Nov 6 2009 12:04AM Matching: inhalation
 - [The ADMIT series - Issues in Inhalation Therapy. 4\) How to choose inhaler devices for the treatment of COPD](#)
MDLinx: Nov 5 2009 10:17AM Matching: inhalation
 - [South Africa Drug Delivery Devices Investment Opportunities, Analysis and Forecasts to 2015 - Now Available](#)
Pharmacy Choice: Oct 30 2009 3:59PM Matching: inhalation
 - [South and Central America Drug Delivery Devices Report - Investment Opportunities, Analysis and Forecasts to 2](#)
Pharmacy Choice: Oct 30 2009 3:59PM Matching: inhalation
 - [Argentina Drug Delivery Devices Investment Opportunities, Analysis and Forecasts to 2015: In-Depth Information](#)
Pharmacy Choice: Oct 28 2009 9:17PM Matching: inhalation
 - [Asia-Pacific Drug Delivery Devices Report - Investment Opportunities, Analysis and Forecasts to 2015](#)
Pharmacy Choice: Oct 28 2009 9:17PM Matching: inhalation
 - [Israel Drug Delivery Devices Investment Opportunities, Analysis and Forecasts to 2015 Offers Detailed and Comp](#)
Pharmacy Choice: Oct 28 2009 9:14PM Matching: inhalation
 - [Gilead's Aztreonam For Inhalation Solution To Be Reviewed By FDA Anti-Infective Drugs Advisory Committee On December 10, 2009](#)
Medical News Today: Oct 28 2009 5:24PM Matching: inhalation
 - [Medical News: Gilead's Aztreonam For Inhalation Solution To Be Reviewed By FDA Anti-Infective Drugs Advisory Committee On December 10, 2009](#)
Medical News Today: Oct 28 2009 11:05AM Matching: inhalation

Inhalation Patents:



- 7618775- [Expanding the eukaryotic genetic code](#)
- 7618958- [Stereospecific anxiolytic and anticonvulsant agents with reduced muscle-relaxant, sedative-hypnotic and ataxic effects](#)
- 7618962- [Pyrazolyl substituted xanthines](#)
- 7618963- [Bicyclic heteroaromatic compounds](#)
- 7618968- [Aryl triazines as LPAAT-.beta. inhibitors and uses thereof](#)
- 7618970- [3-aminocyclopentanecarboxamides as modulators of chemokine receptors](#)
- 7618972- [Substituted triazole derivatives as oxytocin antagonists](#)

- 7618974- [Gyrase inhibitors and uses thereof](#)
- 7618978- [Amides as BACE inhibitors](#)
- 7618979- [Pyridopyrrolizine and pyridoindolizine derivatives](#)
- 7618980- [Pyrrolo\(oxo\)quinolines as 5HT ligands](#)
- 7618949- [Drug-eluting stents coated with P2Y.sub.12 receptor antagonist compound](#)
- 7618948- [Devices, systems and methods for improving and/or cognitive function through brain delivery of siRNA](#)
- 7618947- [Modulation of HIF-1 beta expression](#)
- 7618783- [Anthrax specific antibodies](#)
- 7618790- [Method for NGF assay for in vitro diagnosis of breast cancer and therapeutic use](#)
- 7618791- [Methods of detecting cancer with antibodies to cytokine receptor ZCYTOR19](#)
- 7618802- [Compositions of coronaviruses with a recombination-resistant genome](#)
- 7618816- [Metal-binding therapeutic peptides](#)
- 7618936- [Methods for treating and diagnosing cancer with WNT inhibitory Factor-1 \(WIF-1\)](#)
- 7618939- [Compositions and methods to prevent cancer with cupredoxins](#)
- 7618940- [Fat regulation](#)
- 7618944- [Encapsulated amyloid-beta peptides](#)
- 7618945- [Heteroaryl peptidomimetics as thrombin receptor antagonists](#)
- 7618983- [Bicyclic triazole .alpha.4 integrin inhibitors](#)
- 7618984- [Sulfonamide compound](#)
- 7619068- [Ovr110 antibody compositions and methods of use](#)
- 7619069- [Antibodies to TGF-beta 1](#)
- 7619070- [Humanized antibodies to interferon alpha receptor-1 \(IFNAR-1\)](#)
- 7619071- [Antibodies that bind interleukin-17 receptor homologue](#)
- 7619086- [HIV integrase inhibitors](#)
- 7619094- [Ketoamides with cyclic P4's as inhibitors of NS3 serine protease of hepatitis C virus](#)
- 7619096- [3-Aminopyrrolidines as inhibitors of monoamine uptake](#)
- 7619110- [Amino acid derived prodrugs of propofol, compositions, uses and crystalline forms thereof](#)
- 7619115- [Ortho-substituted N'-benzylidene-\(3-hydroxyphenyl\)acetylhydrazides](#)
- 7619538- [Programmable, directing evacuation systems: apparatus and method](#)
- 7619066- [IL-1ra variants](#)
- 7619062- [PRO214 polypeptides](#)
- 7619007- [Method and composition for administering an NMDA receptor antagonist to a subject](#)
- 7618986- [Method of treating latent tuberculosis](#)
- 7618987- [Acylated piperidine derivatives as melanocortin 4-receptor agonists](#)
- 7618988- [Use of substituted aminomethyl chromans](#)
- 7618991- [Heterocyclic derivatives, preparation and therapeutic use thereof](#)
- 7618994- [Fluoro substituted cycloalkanoindoles, compositions containing such compounds and methods of treatment](#)
- 7618995- [Derivatives of 4,5-diarylpyrrole, preparation method thereof and use of same in therapeutics](#)
- 7619000- [S-dimethylarsino-thiosuccinic acid S-dimethylarsino-2-thiobenzoic acid S-\(dimethylarsino\) glutathione as treatments for cancer](#)
- 7619002- [Use of polyunsaturated fatty acids for the primary prevention of major cardiovascular events](#)
- 7619005- [Methods for treating cognitive impairment in humans with Multiple Sclerosis](#)
- 7619006- [Conjugated psychotropic drugs and uses thereof](#)
- 7620223- [Method and system for registering pre-procedural images with intra-procedural images using a pre-computed knowledge base](#)

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