Carbon Monoxide Poisoning

A Medical Dictionary, Bibliography,
and Annotated Research Guide to
Internet References

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and Philip M. Parker, Ph.D., Editors

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FORWARD

In March 2001, the National Institutes of Health issued the following warning: "The number of Web sites offering health-related resources grows every day. Many sites provide valuable information, while others may have information that is unreliable or misleading."[1] Furthermore, because of the rapid increase in Internet-based information, many hours can be wasted searching, selecting, and printing. Since only the smallest fraction of information dealing with carbon monoxide poisoning is indexed in search engines, such as **www.google.com** or others, a non-systematic approach to Internet research can be not only time consuming, but also incomplete. This book was created for medical professionals, students, and members of the general public who want to know as much as possible about carbon monoxide poisoning, using the most advanced research tools available and spending the least amount of time doing so.

In addition to offering a structured and comprehensive bibliography, the pages that follow will tell you where and how to find reliable information covering virtually all topics related to carbon monoxide poisoning, from the essentials to the most advanced areas of research. Public, academic, government, and peer-reviewed research studies are emphasized. Various abstracts are reproduced to give you some of the latest official information available to date on carbon monoxide poisoning. Abundant guidance is given on how to obtain free-of-charge primary research results via the Internet. **While this book focuses on the field of medicine, when some sources provide access to non-medical information relating to carbon monoxide poisoning, these are noted in the text.**

E-book and electronic versions of this book are fully interactive with each of the Internet sites mentioned (clicking on a hyperlink automatically opens your browser to the site indicated). If you are using the hard copy version of this book, you can access a cited Web site by typing the provided Web address directly into your Internet browser. You may find it useful to refer to synonyms or related terms when accessing these Internet databases. **NOTE:** At the time of publication, the Web addresses were functional. However, some links may fail due to URL address changes, which is a common occurrence on the Internet.

For readers unfamiliar with the Internet, detailed instructions are offered on how to access electronic resources. For readers unfamiliar with medical terminology, a comprehensive glossary is provided. For readers without access to Internet resources, a directory of medical libraries, that have or can locate references cited here, is given. We hope these resources will prove useful to the widest possible audience seeking information on carbon monoxide poisoning.

The Editors

[1] From the NIH, National Cancer Institute (NCI): **http://www.cancer.gov/cancerinfo/ten-things-to-know**.

CHAPTER 1. STUDIES ON CARBON MONOXIDE POISONING

Overview

In this chapter, we will show you how to locate peer-reviewed references and studies on carbon monoxide poisoning.

The Combined Health Information Database

The Combined Health Information Database summarizes studies across numerous federal agencies. To limit your investigation to research studies and carbon monoxide poisoning, you will need to use the advanced search options. First, go to **http://chid.nih.gov/index.html**. From there, select the "Detailed Search" option (or go directly to that page with the following hyperlink: **http://chid.nih.gov/detail/detail.html**). The trick in extracting studies is found in the drop boxes at the bottom of the search page where "You may refine your search by." Select the dates and language you prefer, and the format option "Journal Article." At the top of the search form, select the number of records you would like to see (we recommend 100) and check the box to display "whole records." We recommend that you type "carbon monoxide poisoning" (or synonyms) into the "For these words:" box. Consider using the option "anywhere in record" to make your search as broad as possible. If you want to limit the search to only a particular field, such as the title of the journal, then select this option in the "Search in these fields" drop box. The following is what you can expect from this type of search:

- **Differentiating Behavioral Disturbances of Dementia From Symptoms of Delirium**

  Source: International Psychogeriatrics. 8(Supplement 3): 425-427. 1996.

  Summary: This journal article discusses the challenge of differentiating behavioral disturbances of dementia from symptoms of delirium. It reviews the similarities between these two conditions that can complicate diagnosis, including the characteristic slowing of electroencephalographic activity, altered sleep cycles, types of behavioral problems, and diurnal variations in symptoms. It then describes potential signs of delirium, including the abrupt onset of symptoms, heightened or reduced attention in a patient with preexisting dementia, prominent fluctuations in symptoms, the occurrence of new hallucinations, altered psychomotor activity, altered prosody of speech, and tremor or asterixis. The article also describes some unusual causes of delirium in

patients with dementia, including the interaction of certain drugs with grapefruit juice, **carbon monoxide poisoning,** folk medications, eye drops with beta-blocker properties, the consumption of alcohol or sedatives, hypoxia, urinary retention, and fecal impaction. 8 references.

Federally Funded Research on Carbon Monoxide Poisoning

The U.S. Government supports a variety of research studies relating to carbon monoxide poisoning. These studies are tracked by the Office of Extramural Research at the National Institutes of Health.[2] CRISP (Computerized Retrieval of Information on Scientific Projects) is a searchable database of federally funded biomedical research projects conducted at universities, hospitals, and other institutions.

Search the CRISP Web site at **http://crisp.cit.nih.gov/crisp/crisp_query.generate_screen**. You will have the option to perform targeted searches by various criteria, including geography, date, and topics related to carbon monoxide poisoning.

For most of the studies, the agencies reporting into CRISP provide summaries or abstracts. As opposed to clinical trial research using patients, many federally funded studies use animals or simulated models to explore carbon monoxide poisoning. The following is typical of the type of information found when searching the CRISP database for carbon monoxide poisoning:

- **Project Title: CELLULAR EFFECTS OF CARBON MONOXIDE**

  Principal Investigator & Institution: Piantades, Claude A.; Duke University Durham, Nc 27706

  Timing: Fiscal Year 2002

  Summary: (Applicant?s Abstract): This project is designed to investigate mechanisms by which low concentrations of CO could exert effects during hypoxia that would explain new preliminary data showing it mediates both apoptosis and cell proliferation or growth in vivo. Despite the presence of hypoxia, CO is associated with oxidative stress as shown by depletion of mitochondrial glutathione, and in the lung, increases in manganese superoxide dismutase (MnSOD) and heme oxygenase-1 (HO-1) expression. In addition, mitochondria from CO exposed animals are more sensitive ex vivo to ATP-facilitated permeability transition, which makes the cell more sensitive to mitochondrial initiation of apoptosis through cytochrome c release. These mitochondria are also susceptible to mtDNA degradation by NO, but not to mtDNA degradation by external oxidants such as t-butyl hydroperoxide. These data indicate that CO places a heavy oxidative/nitrosative burden on mitochondria. We propose that much of the oxidative burden is related to the respiratory chain because CO causes oxidation-reduction (redox) changes in the cytochrome b-c(l) region. We also hypothesize that increased mitochondrial leakage of H2O2 provides a redox signal to the cell. Therefore, we propose to pursue the mechanisms of CO-induced mitochondrial oxidant injury in Specific Aims 1 and 2, and investigate activation of mechanisms of signaling by CO that have redox response elements involved in apoptosis and/or cell proliferation in Specific

[2] Healthcare projects are funded by the National Institutes of Health (NIH), Substance Abuse and Mental Health Services (SAMHSA), Health Resources and Services Administration (HRSA), Food and Drug Administration (FDA), Centers for Disease Control and Prevention (CDCP), Agency for Healthcare Research and Quality (AHRQ), and Office of Assistant Secretary of Health (OASH).

Aims 3 and 4. Finally in Aim 5, we will investigate the possibility that HO-1, which produces CO endogenously, activates the same intracellular mechanisms associated with exogenous CO exposure. Thus, the project seeks to define a biological mechanism for the unique cellular responses to CO by testing the hypothesis that CO-related oxidative/nitrosative events directly alter mitochondrial permeability, redox and synthetic function and influence cell signaling and/or survival through these mechanisms.

Website: http://crisp.cit.nih.gov/crisp/Crisp_Query.Generate_Screen

- **Project Title: CO POISONING IN THE CONTEXT OF A REPERFUSION INJURY**

  Principal Investigator & Institution: Thom, Stephen R.; Associate Professor; Emergency Medicine; University of Pennsylvania 3451 Walnut Street Philadelphia, Pa 19104

  Timing: Fiscal Year 2002; Project Start 01-JUL-1989; Project End 31-JUL-2004

  Summary: The focus of this grant proposal is to elucidate the mechanisms for neurological morbidity associated with carbon monoxide (CO) poisoning. The specific aims relate to evaluation of the biochemical events and functional deficits in brain which follow acute perivascular oxidative injury associated with CO poisoning in a rat model. There are three specific aims for this proposal: (1) Evaluate the changes in nitric oxide (NO) concentration and associated biochemical processes in brain after CO exposure, (2) Evaluate perivascular changes and immunological responses in brain following CO poisoning, (3) Evaluate the progression of brain injury and methods of protection. The ultimate goal is to determine the cascade of events initiated by CO that lead to neurological dysfunction. Exposure to CO raises the steady state concentration of NO. We hypothesize that perivascular changes triggered by NO-derived oxidants precipitate a series of pathological responses that begin during the CO exposure and continue for weeks. These changes lead to regional defects in parenchymal metabolism in brain and functional changes manifested as a learning deficit. The research plan is aimed to test the hypothesis that immune responses and the associated oxidative stress cause neurological injuries.

  Website: http://crisp.cit.nih.gov/crisp/Crisp_Query.Generate_Screen

- **Project Title: ELECTROCHEMICAL OXYGEN CONCENTRATOR FOR HOME THERAPY**

  Principal Investigator & Institution: Andrews, Craig C.; Lynntech, Inc. College Station, Tx 77840

  Timing: Fiscal Year 2003; Project Start 01-MAY-2000; Project End 31-MAR-2005

  Summary: (provided by applicant): The beneficial effects of Long-term Oxygen Therapy (LTOT) in the home for patients with Chronic Obstructive Pulmonary Disease (COPD), and other lung diseases causing hypoxemia, are well known. The number of patients with COPD is increasing in most countries, and in the U.S., it is now one of the leading causes of death. LTOT increases a patient's survival rate and also has the potential to improve considerably a patient's quality of life. Since LTOT must be given for as long as possible during the day, it is important to extend daily hours of oxygen therapy into the mobile period of the day. This can be achieved through the use of compact, lightweight, portable sources of oxygen gas. Thus, there exists a clear need for a new technology-based oxygen generator that satisfies all the requirements for LTOT both within and outside the home. Currently, providing ambulatory oxygen with LOX systems is problematic because of the cost of LOX and hence lower profit margins for suppliers. The aims of portable oxygen are to increase exercise tolerance, reduce exercise dyspnea,

improve quality of life, and extend the daily hours of LTOT. In response to the identified need, this project is specifically aimed at improving the delivery of oxygen to ambulatory patients in the home and office setting using an innovative electrochemical life support system. The technology will have a dramatic improvement in clinical benefits, patient convenience and delivery costs. The portable electrochemical system will produce on demand a supply of humidified, but otherwise pure, oxygen gas, while having a system weight less than 10 Ib and system power requirements less than 600 Watts. The system will provide instantaneous start-up and it is estimated that the oxygen generator will cost less than $1,000. A dual-use development approach will be adopted because the portable electrochemical oxygen generator technology has both government and other commercial applications such as battlefield life support, forward medical treatment areas, casualty transport vehicles, "oxygen trickle charger" for commercial and military aircraft, and hyperbaric oxygen therapy for decompression sickness, air embolism, and **carbon monoxide poisoning.**

Website: http://crisp.cit.nih.gov/crisp/Crisp_Query.Generate_Screen

- **Project Title: TOBACCO REDUCTION STRATEGIES FOR PATIENTS WITH CARDIAC DISEASE**

  Principal Investigator & Institution: Joseph, Anne; Associate Professor; University of Minnesota Twin Cities 200 Oak Street Se Minneapolis, Mn 554552070

  Timing: Fiscal Year 2002

  Summary: Cigarette smoking promotes atherosclerosclerotic cardiovascular disease (ASCVD), and cessation confers significant health benefits to patients with heart disease. Total abstinence is the goal of current tobacco dependence treatment models, however, it is not accessible to many patients. There is a strong dose-response relationship between the amount smoked and risk for ASCVD, suggesting that for those patients who cannot stop, reducing smoking may be of benefit. Nicotine replacement therapy (NRT) is safe in patients with cardiovascular disease, and limited data suggest that long term NRT is effective at reducing tobacco use and carbon monoxide (CO) exposure. We propose a randomized controlled clinical trial in 180 patients with ASCVD to test the hypothesis that a combined behavioral and pharmacological intervention designed to reduce smoking by at least 50% will 1) reduce cigarette consumption, 2) improve smoking cessation rates, 3) reduce signs and symptoms of ASCVD, 4) improve risk factors for ASCVD, and 5) prove to be cost-effective in terms of cost per quality adjusted life year gained. We will randomly assign subjects from two ambulatory care sites to the smoking reduction treatment (SR) group (including a standardized approach to transdermal nicotine, or nicotine gum if not successful reducing using patch) or the control group. Subjects will be followed for a two year period, and will be encouraged to quit at any time if they are ready. We will collect data regarding smoking behavior, exercise tolerance, angina, quality of life, and adverse events; and measure nicotine, cotinine, CO, lipids, and fibrinogen. We will contribute samples to the Biomarker Core project to assess the effect of smoking reduction on other toxin levels. We will conduct an economic analysis of the potential cost-effectiveness of this approach. This study will test whether a long term strategy to reduce cigarette consumption in a medically ill population is safe, effective , and improves health outcomes for smokers who cannot quit.

  Website: http://crisp.cit.nih.gov/crisp/Crisp_Query.Generate_Screen

E-Journals: PubMed Central[3]

PubMed Central (PMC) is a digital archive of life sciences journal literature developed and managed by the National Center for Biotechnology Information (NCBI) at the U.S. National Library of Medicine (NLM).[4] Access to this growing archive of e-journals is free and unrestricted.[5] To search, go to **http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=Pmc**, and type "carbon monoxide poisoning" (or synonyms) into the search box. This search gives you access to full-text articles. The following is a sample of items found for carbon monoxide poisoning in the PubMed Central database:

- **Identifying and managing adverse environmental health effects: 6. Carbon monoxide poisoning.** by Abelsohn A, Sanborn MD, Jessiman BJ, Weir E.; 2002 Jun 25; http://www.pubmedcentral.gov/articlerender.fcgi?tool=pmcentrez&artid=116158

The National Library of Medicine: PubMed

One of the quickest and most comprehensive ways to find academic studies in both English and other languages is to use PubMed, maintained by the National Library of Medicine.[6] The advantage of PubMed over previously mentioned sources is that it covers a greater number of domestic and foreign references. It is also free to use. If the publisher has a Web site that offers full text of its journals, PubMed will provide links to that site, as well as to sites offering other related data. User registration, a subscription fee, or some other type of fee may be required to access the full text of articles in some journals.

To generate your own bibliography of studies dealing with carbon monoxide poisoning, simply go to the PubMed Web site at **http://www.ncbi.nlm.nih.gov/pubmed**. Type "carbon monoxide poisoning" (or synonyms) into the search box, and click "Go." The following is the type of output you can expect from PubMed for carbon monoxide poisoning (hyperlinks lead to article summaries):

- **A case of open-air carbon monoxide poisoning in a 10-year-old boy.**
  Author(s): Wilson M, Rosen P.
  Source: The Journal of Emergency Medicine. 2001 October; 21(3): 289-90.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=11604288&dopt=Abstract

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[3] Adapted from the National Library of Medicine: **http://www.pubmedcentral.nih.gov/about/intro.html**.

[4] With PubMed Central, NCBI is taking the lead in preservation and maintenance of open access to electronic literature, just as NLM has done for decades with printed biomedical literature. PubMed Central aims to become a world-class library of the digital age.

[5] The value of PubMed Central, in addition to its role as an archive, lies in the availability of data from diverse sources stored in a common format in a single repository. Many journals already have online publishing operations, and there is a growing tendency to publish material online only, to the exclusion of print.

[6] PubMed was developed by the National Center for Biotechnology Information (NCBI) at the National Library of Medicine (NLM) at the National Institutes of Health (NIH). The PubMed database was developed in conjunction with publishers of biomedical literature as a search tool for accessing literature citations and linking to full-text journal articles at Web sites of participating publishers. Publishers that participate in PubMed supply NLM with their citations electronically prior to or at the time of publication.

- **A death in a stationary vehicle whilst idling: unusual carbon monoxide poisoning by exhaust gases.**
  Author(s): Osawa M, Horiuchi H, Yoshida K, Tada T, Harada A.
  Source: Legal Medicine (Tokyo, Japan). 2003 March; 5 Suppl 1: S132-4.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=12935571&dopt=Abstract

- **A flood-related outbreak of carbon monoxide poisoning--Grand Forks, North Dakota.**
  Author(s): Daley WR, Shireley L, Gilmore R.
  Source: The Journal of Emergency Medicine. 2001 October; 21(3): 249-53.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=11604279&dopt=Abstract

- **A long-term follow-up study of serial magnetic resonance images in patients with delayed encephalopathy after acute carbon monoxide poisoning.**
  Author(s): Inagaki T, Ishino H, Seno H, Umegae N, Aoyama T.
  Source: Psychiatry and Clinical Neurosciences. 1997 December; 51(6): 421-3.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=9472130&dopt=Abstract

- **A multicenter, prospective study of fetal outcome following accidental carbon monoxide poisoning in pregnancy.**
  Author(s): Koren G, Sharav T, Pastuszak A, Garrettson LK, Hill K, Samson I, Rorem M, King A, Dolgin JE.
  Source: Reproductive Toxicology (Elmsford, N.Y.). 1991; 5(5): 397-403.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=1806148&dopt=Abstract

- **A novel source of carbon monoxide poisoning: explosives used in construction.**
  Author(s): Deitchman S, Decker J, Santis L.
  Source: Annals of Emergency Medicine. 1998 September; 32(3 Pt 1): 381-4.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=9737505&dopt=Abstract

- **Accidental carbon monoxide poisoning with severe cardiorespiratory compromise in 2 children.**
  Author(s): Grant M, Clay B.
  Source: American Journal of Critical Care : an Official Publication, American Association of Critical-Care Nurses. 2002 March; 11(2): 128-31.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=11888124&dopt=Abstract

- **Accidental carbon monoxide poisoning.**
  Author(s): Zeller WP, Miele A, Suarez C, Hannigan J, Hurley RM.
  Source: Clinical Pediatrics. 1984 December; 23(12): 694-5.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=6209050&dopt=Abstract

- **Accidental carbon monoxide poisoning. Emphasis on hyperbaric oxygen treatment.**
  Author(s): Gozal D, Ziser A, Shupak A, Melamed Y.
  Source: Clinical Pediatrics. 1985 March; 24(3): 132-5.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=3971638&dopt=Abstract

- **Acute carbon monoxide poisoning and alcohol intoxication: a rare condition that is complex to manage.**
  Author(s): Kouimtsidis C.
  Source: Crisis. 2002; 23(2): 74-6.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=12500892&dopt=Abstract

- **Acute carbon monoxide poisoning as the cause of rhabdomyolysis and acute renal failure.**
  Author(s): Sefer S, Degoricia V, Bilic B, Trotic R, Milanovic-Stipkovic B, Ratkovi-Gusic I, Kes P.
  Source: Acta Med Croatica. 1999; 53(4-5): 199-202.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=10914136&dopt=Abstract

- **Acute carbon monoxide poisoning in an animal model: the effects of altered glucose on morbidity and mortality.**
  Author(s): Penney DG.
  Source: Toxicology. 1993 June 11; 80(2-3): 85-101. Review.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=8328003&dopt=Abstract

- **Acute carbon monoxide poisoning.**
  Author(s): Krantz T, Thisted B, Strom J, Sorensen MB.
  Source: Acta Anaesthesiologica Scandinavica. 1988 May; 32(4): 278-82.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=3394478&dopt=Abstract

- **Acute carbon monoxide poisoning. Risk of late sequelae and treatment by hyperbaric oxygen.**
  Author(s): Mathieu D, Nolf M, Durocher A, Saulnier F, Frimat P, Furon D, Wattel F.
  Source: Journal of Toxicology. Clinical Toxicology. 1985; 23(4-6): 315-24.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=4057322&dopt=Abstract

- **Acute carbon monoxide poisoning: diffusion MR imaging findings.**
  Author(s): Sener RN.
  Source: Ajnr. American Journal of Neuroradiology. 2003 August; 24(7): 1475-7.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=12917151&dopt=Abstract

- **Acute carbon monoxide poisoning: emergency management and hyperbaric oxygen therapy.**
  Author(s): Severance HW, Kolb JC, Carlton FB, Jorden RC.
  Source: J Miss State Med Assoc. 1989 October; 30(10): 321-5. Review.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=2677388&dopt=Abstract

- **Acute hydrocephalus following carbon monoxide poisoning.**
  Author(s): So GM, Kosofsky BE, Southern JF.
  Source: Pediatric Neurology. 1997 October; 17(3): 270-3.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=9390708&dopt=Abstract

- **Acute hydrocephalus in carbon monoxide poisoning.**
  Author(s): Anton M, Alcaraz A, Rey C, Concha A, Fernandez J.
  Source: Acta Paediatrica (Oslo, Norway : 1992). 2000 March; 89(3): 361-4.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=10772288&dopt=Abstract

- **Acute transient hydrocephalus in carbon monoxide poisoning: a case report.**
  Author(s): Prabhu SS, Sharma RR, Gurusinghe NT, Parekh HC.
  Source: Journal of Neurology, Neurosurgery, and Psychiatry. 1993 May; 56(5): 567-8.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=8505654&dopt=Abstract

- **Allopurinol/N-acetylcysteine for carbon monoxide poisoning.**
  Author(s): Howard RJ, Blake DR, Pall H, Williams A, Green ID.
  Source: Lancet. 1987 September 12; 2(8559): 628-9.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=2887913&dopt=Abstract

- **Amnesia after carbon monoxide poisoning.**
  Author(s): Bourgeois JA.
  Source: The American Journal of Psychiatry. 2000 November; 157(11): 1884-5.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=11058494&dopt=Abstract

- **An epidemiological study of acute carbon monoxide poisoning in the West Midlands.**
  Author(s): Wilson RC, Saunders PJ, Smith G.
  Source: Occupational and Environmental Medicine. 1998 November; 55(11): 723-8.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=9924447&dopt=Abstract

- **An outbreak of carbon monoxide poisoning after a major ice storm in Maine.**
  Author(s): Daley WR, Smith A, Paz-Argandona E, Malilay J, McGeehin M.
  Source: The Journal of Emergency Medicine. 2000 January; 18(1): 87-93.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=10645845&dopt=Abstract

- **An unusual case of carbon monoxide poisoning.**
  Author(s): Auger PL, Levesque B, Martel R, Prud'homme H, Bellemare D, Barbeau C, Lachance P, Rhainds M.
  Source: Environmental Health Perspectives. 1999 July; 107(7): 603-5.
  http://www.ncbi.nlm.nih.gov:80/entrez/query.fcgi?cmd=Retrieve&db=PubMed&list_uids=10379009&dopt=Abstract

- **Apoptotic and necrotic brain lesions in a fatal case of carbon monoxide poisoning.**
  Author(s): Uemura K, Harada K, Sadamitsu D, Tsuruta R, Takahashi M, Aki T, Yasuhara M, Maekawa T, Yoshida K.
  Source: Forensic Science International. 2001 February 15; 116(2-3): 213-9.
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