DISCLOSURE AND DISCLAIMER

1) The information that follows from Donnay Detoxicology LLC contains links to collections of peer-reviewed articles about carbon monoxide that open webpages of the US National Library of Medicine at www.pubmed.ncbi.nlm.nih.gov. From the PubMed site--over which Donnay Detoxicology LLC has no control--you can save or export the articles in the collections.

2) The articles in each collection were selected by Albert Donnay, a consulting toxicologist who has specialized in CO poisoning since 1999. He selected the articles for their relevance to the topics and not for their accuracy, integrity, clinical utility, or any other reason.

3) The collections are not regularly updated and so only should be considered illustrative, not exhaustive. To find more recent articles on any topic "X", you can search at www.pubmed.gov for ("carbon monoxide" and "X")

4) *By clicking on the links provided below to any of Donnay's collections, you acknowledge this disclosure and agree not to hold Albert Donnay or Donnay Detoxicology LLC responsible for any false, misleading, or outdated information that the selected articles may contain.*

For more information on Donnay Detoxicology's library of over 1,500 PubMed collections on CO-related topics, see www.tinyurl.com/COpapers

Donnay Detoxicology LLC

www.DonnayDetox.com

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CARBON MONOXIDE RISK FACTORS:
SOME DRUGS, SUPPLEMENTS AND VACCINES

Drugs, supplements and injected vaccinations may cause internal carbon monoxide poisoning because they increase the rate at which humans produce internal (endogenous) CO more than they increase the rates at which we excrete CO via breath, skin and bodily fluids.

Most internal CO comes from the natural breakdown of heme proteins (such as hemoglobin in blood and myoglobin in muscles) that are not carrying oxygen. When combined with 3 oxygen molecules and catalyzed by an enzyme called NADPH, HO-1 and -2 convert heme into equal parts of CO, bilirubin, and ferritin, along with hydrogen from the NADPH. If CO from any source is bound to the heme when the protein is broken down, this CO also is released, which doubles the amount of CO released compared to each of bilirubin, ferritin, and hydrogen.

For collections of articles on PubMed curated by Albert Donnay about the increase in heme oxygenase and thus also internal CO triggered by

Antibiotics used to prevent and treat infections, see:
https://www.ncbi.nlm.nih.gov/sites/myncbi/DonnayDetoxicologyLLC/collections/61787185/public/

Chemotherapy drugs used to treat cancer, see:
https://www.ncbi.nlm.nih.gov/sites/myncbi/DonnayDetoxicologyLLC/collections/61787139/public/

Injected Vaccines, see:
https://www.ncbi.nlm.nih.gov/sites/myncbi/DonnayDetoxicologyLLC/collections/50153890/public/

Non-Prescription drugs including Acetaminophen and Aspirin, see:
https://www.ncbi.nlm.nih.gov/sites/myncbi/DonnayDetoxicologyLLC/collections/61786858/public/

Oxygen at high concentrations (from 40% to 100% FiO2), see:

https://www.ncbi.nlm.nih.gov/sites/myncbi/DonnayDetoxicologyLLC/collections/61786873/public/
and specifically related to the level of oxygen inhaled during surgery, see:
https://www.ncbi.nlm.nih.gov/sites/myncbi/DonnayDetoxicologyLLC/collections/56066746/public/

CARBON MONOXIDE RISK FACTORS:
SOME DRUGS, SUPPLEMENTS AND VACCINES, page 2 of 2

Supplements including

Capsaicin, see:
https://www.ncbi.nlm.nih.gov/sites/myncbi/DonnayDetoxicologyLLC/collections/59140742/public/
Curcumin, see:
https://www.ncbi.nlm.nih.gov/sites/myncbi/DonnayDetoxicologyLLC/collections/61786793/public/
Ginkgo Biloba, see:
https://www.ncbi.nlm.nih.gov/sites/myncbi/DonnayDetoxicologyLLC/collections/61787142/public/
Hemin and iron supplements, see:
https://www.ncbi.nlm.nih.gov/sites/myncbi/DonnayDetoxicologyLLC/collections/61786811/public/
Resveratrol, see:
https://www.ncbi.nlm.nih.gov/sites/myncbi/DonnayDetoxicologyLLC/collections/61787123/public/
Vitamin B3, niacin, see:
https://www.ncbi.nlm.nih.gov/sites/myncbi/DonnayDetoxicologyLLC/collections/61787088/public/
Vitamin C, **ascorbic acid,** see:
https://www.ncbi.nlm.nih.gov/sites/myncbi/DonnayDetoxicologyLLC/collections/60110256/public/

Note relatively few drugs and supplements have been reported to inhibit heme oxygenase-1 and/or -2 and reduce the rate of internal CO production; see:
https://www.ncbi.nlm.nih.gov/sites/myncbi//DonnayDetoxicologyLLC/collections/59718744/public/

They include:

glutathione and its precursors
hormonal birth control that stops menstrual cycle
interferon-gamma
melatonin
valproic acid
zinc compounds such as zinc acetate and zinc protoporphyrin IX