

Search Rubicon

[Advanced Search](#)

[Home](#)

Browse

[Communities & Collections](#)

[Titles](#)

[Authors](#)

[By Date](#)

Sign on to:

[Receive email updates](#)

[My Rubicon](#)
authorized users

[Edit Profile](#)

[Help](#)

[Rubicon Research Repository](#) >
[Rubicon Foundation Archive](#) >
[Journal of Hyperbaric Medicine](#) >

Please use this identifier to cite or link to this item:

<http://archive.rubicon-foundation.org/4304>

Title: Treating acidemia in carbon monoxide poisoning may be dangerous.

Authors: Peirce, EC

Keywords: Carbon Monoxide Poisoning/*therapy
Carbon Monoxide
CO

Hyperbaric Oxygenation
oxyhemoglobin dissociation curve
acid base
temperature
O2 availability

Issue Date: 1986

Publisher: Undersea and Hyperbaric Medical Society, Inc.

Citation: Peirce EC. Treating acidemia in carbon monoxide poisoning may be dangerous. J Hyperbaric Med 1986; 1(2)87-97.

Abstract: In addition to reducing the available hemoglobin (Hb) by tightly combining with it, CO poisoning produces a substantial left shift in the oxyhemoglobin dissociation curve. This reduces the usual ready O2 release in the tissue and is a major factor in the production of CNS hypoxia and damage. An acidemia, often present in severe CO poisoning especially if there are also burns, moderates the left curve shift and may, therefore, facilitate tissue oxygenation. Usual emergency room regimens routinely employ alkali in the treatment of acidemia, and there is a tendency to give large amounts of sodium bicarbonate to a patient in coma with a substantial acidemia. This is potentially a very dangerous practice in CO victims as an alkalemia, or even a reduction in an acidemia, will further shift the O2 dissociation curve and may aggravate and hypoxia, perhaps ensuring CNS damage. This paper gives the mathematical details of the curve shift produced by CO and pH change, and explains how to combine the two so that their total magnitude and the effect on available tissue O2 can be known.

Description: Journal of Hyperbaric Medicine : Journal of the Undersea and Hyperbaric Medical Society, Inc.

URI: <http://archive.rubicon-foundation.org/4304>

ISSN: 0884-1225

Appears in Collections: [Journal of Hyperbaric Medicine](#)

Files in This Item:

| File | Description | Size | Format |
|----------------|-------------|--------|-------------------------------------|
| JHM_V1N2_2.pdf | | 1142Kb | Adobe PDF View/Open |

[Show full item record](#)

All items in DSpace are protected by copyright, with all rights reserved.