

- 955 Efficiency of Various Types of Artificial Respiration at High Altitudes.
F.R. Blood and F.E. D'Amour. *Am. J. Physiol.* 156, 52-61 (1949).

Comparative results with various techniques for artificial respiration are tabulated. Coramina was effective in stimulating respiration at low altitudes but not at high altitudes. Other stimulants studied at low altitudes were caffeine, strychnine, picrotoxin, metrazole, and potassium cyanide. Of these, only strychnine approached coramina in effectiveness. Rats were maintained for about 25 minutes by diffusion respiration with oxygen as the diffusion gas. Helium-oxygen mixtures offered no advantage over pure oxygen, and decreased the survival time of the animals.

--Chem. Absts.

- 956 Diisopropyl Fluophosphate: Site of Injection and Variation in Response.
A.M. Freedman and H.E. Himwich. *Am. J. Physiol.* 156, 125-128 (1949).

A study of lethality with different sites of injection showed that the brain is the part of the body most sensitive to diisopropyl fluophosphate, the cause of death being respiratory. The liver managed the largest doses with least general effects. Injection of the substance into one common carotid artery produced an inverse syndrome consisting in part of forced circling movements to the side opposite the injection. When artificial respiration was used to avoid respiratory failure, large doses of diisopropyl fluophosphate precipitated grand mal type of brain waves. The subsequent injection of atropine restored the normal pattern. Atropine given before the doses prevented the development of the grand mal pattern.

-- Chem. Absts.

- 957 The Absorption and Excretion of Fluorides. III Further Observations on Metabolism of Fluorides at High Levels of Intake. E.J. Largent and F.F. Heyroth. *J. Ind. Hyg. & Tox.* 31, 134-138 (May, 1949).

Ingestion of fluoride to the extent of 12 to 25 mg. per day, in the form of the aqueous solution of a salt, resulted in absorption varying from 95 to 97% of the intake. Of the amount absorbed, 37 to 48% was stored in the tissues. When solid salts, other than sodium fluoborate were ingested in the amounts of 6 to 36 mg. per day, the amount absorbed varied from 62 to 77% of the intake. Of the amount absorbed, 34 to 45% was stored in the tissues. With corresponding quantities of sodium fluoborate, the quantities absorbed were 90% of the amounts ingested. The quantities excreted were slightly in excess of those which could be accounted for by the absorption of fluoride as fluoborate. The concentration in the urine increased as the average amount of fluorine absorbed daily increased, and concentrations averaging between 3 and 17 mg. per liter were observed during the periods of elevated fluoride intake.

-- Authors' Summary

- 958 The Extra-thyroid Mechanism in the Prevention of Fatty Livers by Methylthiouracil in Acute Phosphorus Poisoning. A. Granati and A. Fracchia. *Folia Med.* 32, 57-61 (1949). Italian.

The fatty liver degeneration in phosphorus poisoning in rats was prevented whether methylthiouracil was given alone or combined with thyroid extract. Thyroid feeding alone had no influence on the process.