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A Struggle With Titans pages;

147 effect on alkaline phosphatase in experimental animals 253-4 McClure: "anti-enzymatic effects of trace quantities of fluoride cannot be disregarded"

Fluorine in Stomatology and Hydiene pages;

361-379 effect on enzymes and cellular metabolism 361 products of glycolysis discovered using fluoride 362 fluoride-metal complexes antagonism

magnesium enzyme activation upon phosphorylated substrates; phosphakinases synthelases enzymes catalyzing hydrolysis of phosphoric acid anhydrides enzymes carrying phosphates or phosphoryl groups from ATP to ADP decarboxylase enzymes affecting -ketoacids peptidases carboxypeptidase alkaline phosphatase

> sensitivity of various enzymes broad spectrum of fluoride effect on enzymes reverse inhibition

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Fluorine in Stomatology and Hygiene continued;

inhibitory effect of fluoride on; esterase citrate and isocitrate dehydrogenase lipase cytochrome C enolase lactic acid dehydrogenase phosphatase carboxylase amylase

365 compensatory processes catalase and protease (rabbits) glycolytic enzyme and intensity of tissue respiration delayed formation of 2-phospho-pyruvic acid

336 enolase (phosphopyruvate hydrase) fooling enolase plant enolase inhibited at 3 mg/l enolase inhibition in liver and heart muscle at 15 mg/l

336 depresses oxidation and decarboxylation of pyruvic acid carbohydrate-phosphorous metabolism reactions pyruvic acidcarboxylase phosphoglucomutase phosphatases

366 enclase; metabolism of carbohydrates, proteins and fats

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367-8

Fluorine in Stomatology and Hygiene continued;

367 Iactate prevented development of fluorosis sodium pyruvate effect on frog heart sodium pyruvate effect on fluoride-reduced sperm mobility higher blood glucose/decreased liver and muscles (rabbits)

> hyperglycaemia blood/liver citrate dehydrogenase more sensitive to fluoride than lactic dehydrogenase, phosphatase, transaminase Krebs cycle

no effect on compounds of dehydrogenese system

368 pancreatic lipase pancreatic esterase fat metabolism fluoride suppresses fatty acid oxidases intestine lipase depressed in rats hyperglycaemia, 50% increase in blood lipase/anylase[sic]

369 fat increases toxic effect of fluoride (in rats) adenosine triphosphate adenosine triphosphoric acid fluoride inhibition in glutamine synthesis system fluoride inhibition of glutamine-glutamic acid reaction inhibition of ADP phosphomutase ATP-ase less inhibited?

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Fluorine in Stomatology and Hygiene continued;

370 phosphoglucomutase cholinesterase inhibition hydrolysis of acetylcholine low potentials in synapses during rest 371 effect of cholinesterase inhibition on impulse formation effect of cholinesterase inhibition on acetylcholine accumulation joint effect of fluoride inhibition on acetylcholine disintegration and hydrolysis of adenosine triphosphoric acid effect on vagus nerve fluorides raise muscle/gland sensitivity to acetylcholine enolase inhibition and acetylcholine precursors phosphatase and bone mineralisation increase in serum phosphatase in disturbances of phosphorous-calcium metabolism 372 phosphatase inhibition in organs and tissues inhibition of phospatases in; plants. bacteria. milk acid phosphatases of tissues alkaline osseous phosphatase varied opinion on relative inhibition of acid and alkaline phosphatases

372-3 sensitivity in embryos to fluorine inhibition of tricalcium-phosphate precipitation in cartilage

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Fluorine in Stomatology and Hygiene continued;

373 compensatory bone phosphatase activity in fluorosis fluoride mechanism and tooth phosphatase during caries increase in bone phosphatase activity at 1,2 mg/l in rats. clear depression in bone phosphatase at 15 mg/l, no change in bone phosphatase activity 1.5 mg/l 374 serum alkaline phosphatase poor indicator of fluorosis serum phosphatase in chronic fluorosis polymerization of fluoride inhibition of enzyme via electropositive dependence on pH, nature and concentration of substrate ester fluoride inhibition of succinic dehydrogenase fluoride inhibition of cytochrome oxidase fluoride inhibition of perioxidase fluoride inhibition of catalase 375-6 reversibility of iron oxide enzyme inhibition 376 inhibition of cellular respiration 377 deoxyribonuclease aids growth of malignant tumours fluoride inhibition of ptyalin fluoride inhibition of pancreatic amylase fluoride inhibition of diastase fluoride inhibition of proteolytic enzymes fluoride inhibition of rennet

fluoride inhibition of urease

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Fluorine in Stomatology and Hygiene continued;

377 increased urine nitrogen and sulphur, increased N/S ratio, decreased hippuric acid with high fluoride intake in experimental lambs

> biochemical damage both deepened and broadened by increasing fluoride dose

biochemical damage at lower levels in vivo than in vitro unequal distribution of fluoride in cellular structures

fluoride concentration "many times higher" in mitochondrial membrane when 0,1 mg/l in plasma

compensation by enzymes less sensitive to fluoride

undiscovered reason for contradictions in fluoride inhibition of enzymes, alternative pathway theory

paradoxical effect general increase in damage to metabolic processes with dose in vivo/in vitro comparisons lacking enzymograms

anticholinesterase effect of diisopropylfluorophosphate cholinergic and cholinometic activity of fluorobenzyl

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Fluoridation and Truth Decay pages;

23	fluoride an enzyme poison — Nobel Prize winner
24	lipase inhibited up to 50% at one part in 15,000,000
69	inhibition of many important enzymes
77	1943 JAMA warning against water containing 1 ppm
84-5	researcher warns fluoride is poisonous, then recommends it for children's milk instead of water
93	enzyme deprived of magnesium, resulting in interference with mental processes, and nerve reactions throughout the body are depressed
242	Nobel Prize winner establishes low-fluoride interference with enzymes
243	enzyme interference and growth of bones
243	enzyme interference and functioning of nerve tissue
247	McClure's 1933 review of fluoride inhibition of lipase, carbohydrate enzymes, pepsin and urease
247	50% inhibition of lipase at one part in 15,000,000
247	25% decrease in succinic dehydrogenase activity in liver at 1 ppm
247	in vivo 6.4% inhibition of liver activity at 1 ppm
247 4	47,8% inhibition in succinic dehydrogenase in kidney at I ppm in drinking water
247	impairment of an important step in cellular metabolism
247	depletes magnesium and manganese availability for enzyme functions
247	human serum alkaline phosphatase measurably reduced by fluoride in diet or drinking water
247-8	fluorides and calcium
248	calcium and nerve impulses, acetylcholine
271	inhibition of some enzymes 500 times greater with organic fluorides than with inorganic fluorides
285	ISRNVS resolution
285-6	Dr Linus Pauling defeated twice

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The Fluoride Question pages;

71 "the most dangerous poison when taken in small quantities un-interruptedly over very long periods" WHO admits little known of in vivo effect on enzymes and optic neuritis caused by NaF therapy

Environmental Fluoride 1977 pages;

58	effect on blood components in experimental animals
59	effect on blood components in humans
90	increased bone alkaline phosphatase and urinary hydroxyproline in Italian studies of fluorotic patients
99	increased serum alkaline phosphatase in fluoridated hemodialysis patients, endemic fluorosis
109	biochemical, metabolic, neurological and early bone changes

Fluoridation \ The Great Dilemma pages;

78	isocitric dehydrogenase higher in low-fluoride group, suggesting fluoride not essential
149	F ⁻ inhibits enclase, phosphoglucomutase
150	[table ll-l]; in vitro inhibition of mammal enzymes
150-1	enzyme activation; alkaline phosphatase
224	lack of dose-response relation in tumour growth acceleration also seen with succinic dehydrogenase
361	succinic dehydrogenase and nephrotoxicity

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Fluoride \ The Aging Factor pages;

4	fluoridation	amounts of fluoride as low as th cause soft tissue levels damaging	
9		enzymes and ki	•
25		effect of fluoride on p	
54		manufacture of enzymes o	n ribosomes
		DNA re	pair enzyme
55		DNA re	pair enzyme
58		DNA re	pair enzyme
59		DNA re	pair enzyme
61		DNA re	pair enzyme
61		enzymes and gen	etic damage
67		DNA re	pair enzyme
73-	-75	enzymes inhibited at 1 ppm and %	inhibition;
		acetylcho	linesterase
		glutamine	synthetase
		DNA repair en	zyme system
		lact	operoxidase
		pteri	n deaminase
		alkaline pyro	phosphatase
		dCM	P deaminase
		butyrycho	linesterase
			ATPase
		phosphom	oncesterase
		acid glycerol	
		J=/	hard a second

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Eluoride \ The Aging Factor continued;

76	direct enzyme inhibition through hydrogen bonding
77	amino acids
79	cytochrome c perioxidase
	acetylcholinesterase
81	hydrogen bonding/enzyme interference confirmed
93	cytochromes
137	JAMA
<u>Fluoride i</u>	n Australia \ A Case to Answer pages;
50	fluoride an enzyme inhibitor
63	fluoride inhibits lactic fermentation in saliva

Fluoride \ The Freedom Fight pages;

98	cholinesterase
105	cholinesterase, acetylcholine
157-158	cholinesterase
166-167	cholinesterase
167	cholinesterase and cell permeability

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Gilbert's Syndrome