

Teeth erosion

a case-control study carried out among swimmers to investigate the possible association between exposure to chlorinated swimming pool water and erosion of dental enamel. Among 49 swimmers with enamel erosion (the cases) 32 reported swimming six or more hours per week, compared with 118 of 245 swimmers without enamel erosion (the controls).

2x2

time	erosion	controls	total
> 6h	32	118	150
< 6h	17	127	144
	49	245	294

a b
c d

4.8020

alpha : 0.05
D.O.F: 1

crit vlaue: 3.841459

since $4.8 > 3.84$, H_0 is rejected, there is correlation between chlorinated swimming pool and ero

H0: there is no correlation between chlorinated swimming pool and erosion of dental enamel

H1: there is correlation between chlorinated swimming pool and erosion of dental enamel

$$X^2 = \frac{N(ad - bc)^2}{(a + b)(a + c)(b + d)(c + d)}$$

erosion of dental enamel

nel
l