

Fluoride: The Natural State of Water

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While all drinking water in the world contains some fluoride, unfortunately, only a small percentage of communities have sufficient naturally-occurring fluoride in the water to reach the level of protection to prevent tooth decay. According to the Centers for Disease Control and Prevention (CDC), only 8,319

Arkansans are on water systems with adequate natural fluoride to prevent decay.

Water fluoridation is the adjustment of the natural fluoride concentration of fluoride-deficient water to the level recommended for optimal dental health. In the US alone, community water fluoridation has been preventing tooth decay for 60 years, since the inception of fluoridation in Grand Rapids, Michigan in 1945. Today, more than 170 million Americans, and 1.6 million Arkansans enjoy the benefits of fluoridation every day.

A multitude of studies conducted since 1945 have consistently shown a marked decrease in tooth decay in fluoridated versus fluoride-deficient communities. These studies show decay reduction of 40-49% for primary (baby) teeth and 50-59% for permanent teeth. Recent similar data for Arkansas now confirm this.

Two separate but parallel studies were conducted in Morrilton, Arkansas and Perry County, Arkansas. The data from these neighboring communities, on opposite sides of the Arkansas River, vividly showcase the efficacy of water fluoridation. In January of 2002, elementary school students in Perryville, Casa and Ann Watson schools received dental screenings at the request of the Perry County Hometown

Health Coalition. In October of 2002, all kindergarten students from the City of Morrilton also received a dental screening at the request of the school. Comparing the data from fluoridated Morrilton to the data on the same age students in Perry County showed twice the decay rate for non-fluoridated Perry County children (figure 1). The data is especially compelling because the screenings involved virtu-

of Arkansans and visitors to Little Rock. The Arkansas River Trail Project is creating a 14-mile hiking and biking trail along the north and south banks of the Arkansas River. The first mile of the trail is called the "Medical Mile" and provides numerous opportunities for education on a variety of health care subjects.

The Coalition has decided to fund a water feature within the Medical Mile.

Figure 1. Decay Rates in Kindergarten Children in Fluoridated Morrilton vs. Non-fluoridated Perry County ⁱⁱⁱ

	# kindergarten students screened	Permanent teeth			Primary Teeth			
		D	M	F	d	m	f	
Perry County	99	13	0	13	138	37	142	
(non-fluoridated)		DMF = 26	dmf = 317		Teeth affected = 343			Average decay rate = 3.4 teeth per child
Morrilton	156	1	0	0	98	8	159	
(fluoridated)		DMF = 1	dmf = 265		Teeth affected = 258			Average decay rate = 1.7 teeth per child

(D and d = decayed teeth, M and m = teeth missing due to decay, F and f = filled teeth)

ally every kindergarten child in the area.

Community water fluoridation is safe, effective and economical. In an age where the decay-prevention benefits of water fluoridation have been proven time and again, it is unconscionable to place anyone at risk of the pain and suffering of tooth decay. In a time when many people in Arkansas do not have access to appropriate dental services, it is society's role to prevent disease instead of treating it after the fact. Through implementation of proven public health interventions, we can prevent tooth decay and help all Arkansans reach optimum oral health.

YOU CAN HELP

The Arkansas Oral Health Coalition has embarked on an ambitious effort to keep the fluoridation message in front

Tentatively titled "Fluoride: The Natural State of Water," a section of the Medical Mile will have a mural wall containing two drinking fountains for people, a drinking fountain for pets, and a jug filler for those exercising on the trail. (see accompanying artist's concept).

The Coalition has provided that anyone donating to the project at \$250 or above will have their names permanently listed on the project. More than 500,000 people a year will learn about better oral health, the importance of fluorides and fluoridation, and know who in Arkansas supports oral health. Please send your tax-deductible donation to the Arkansas Oral Health Coalition, Inc. c/o Office of Oral Health, 4815 W. Markham, Slot 41, Little Rock, AR 72205. 