

## **Epidemiology of Fluorosis in Dharwad District, Karnataka**

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**KEY WORDS** Fluorosis. Prevalence. Fluoride. Food habits.

**ABSTRACT** Epidemiology of fluorosis in selected endemic villages of Dharwad district was studied during 1994-95. The sample size was 532 of which 224 were children and 308 adults. Life style of subjects involved hard manual labour and of poor economic condition. The villages had maximum temperature of  $40\pm 1^{\circ}\text{C}$  with dry climate. Fluoride in drinking water of fluorotic villages was as high as 4.00 ppm to 13.5 ppm. Diet consisted of sorghum, chillies and black tea which augment fluoride intake. The protein intake ranged from 47.68 g per day to 52.08 g per day, calcium adequacy was only 59 per cent. The adult intake of fluoride was to a maximum extent of 11.14 mg per day through food and 42.00 ppm through water. Lysine was the first limiting amino acid in both children and adults. The amino acid score was 0.36 in diet of males (13-15 years) and 0.37 in the diets of females (16-18 years). Prevalence of dental fluorosis was 56.20 percent and skeletal fluorosis was 36.65 per cent. Of those affected by fluorosis 34.20 per cent were males and 27.44 percent were females. Dental fluorosis appeared after the age of six years and skeletal after 15 years. A minimum period of six years stay was predisposing for dental fluorosis to manifest and eleven years for skeletal fluorosis. The fluorotic score was positively related to the quantum of work done. The score ranged from 4.49 in sedentary workers to 12.13 in heavy workers.

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