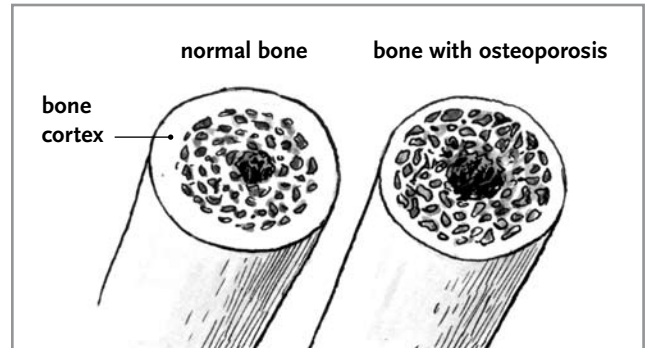


# Bones: Osteoporosis

## Osteoporosis

Osteoporosis is a severe loss of mineral from the bone. The cortex, which contains most of the bone's minerals, becomes very thin and fractures easily. It seems to be associated with aging and with malnutrition. In modern Western populations osteoporosis is a common problem in women after menopause and in men after they reach age 60. In some societies where nutrition is poor osteoporosis is a serious problem for young women. Childbearing apparently drains the mineral reserves from their bones. In addition, young women who become very thin—to the point where their body fat drops below a certain level—stop producing the hormone estrogen that plays a role in bone turnover; these young women may later exhibit osteoporosis. Table 1 shows the number and percentages of individuals who suffered from osteoporosis.



## Procedure

- 1 Review and graph the data.
- 2 Analyze the data for what it reveals about the health of each community.
- 3 Use the information on this page and what you have learned from the data to answer the questions listed.

## Questions

Write your answers on a separate sheet of paper.

- 1 How is osteoporosis distributed by age and sex in the two groups?
- 2 How do young women in Indian Knoll compare with young women in Hardin Village?
- 3 What conclusions could you draw from this data and the information you have been given?
- 4 Write down any other observations you have about this data set.

**Table 1: Osteoporosis**

Ages	Indian Knoll						Hardin Village					
	Males			Females			Males			Females		
	#w	#w/o	% with	#w	#w/o	% with	#w	#w/o	% with	#w	#w/o	% with
17–29	1	25	3.8	1	27	3.6	3	24	11.1	3	23	11.5
30–39	0	19	0	0	10	0	6	13	31.6	2	12	14.3
40+	5	41	10.9	16	14	53.3	7	14	33.3	16	17	48.5