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## Cancer Rate

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LOS ANGELES - Mormons neither drink nor smoke, and they stress clean living. They also die of cancer at half the rate of other Californians.

That is not surprising, since many cancers—especially cancer of the lungs, one of the biggest killershave been linked to tobacco and alcohol.

But Dr. James E. Enstrom of the school of public health at the University of California at Los Angeles has found that Mormons in Utah and California have strikingly lower cancer death rates in sites that have never been associated with tobacco, alcohol or diet. These include cancer of the lymphatic system, such as Hodgkin's disease. breast cancer, uterine cancer, cancers of the bladder and kidneys and cancer of the pancreas.

His findings are supported by a separate study of cancer deaths among Seventh Day Adventists, a religion with even stricter dietary regulations and bans on smoking and drinking, done by Dr. Roland L. Phillips of Loma Linda University at Loma Linda, Calif.

Phillips, a Seventh Day Adventist, found that the cancer death rate for Seventh Day Adventists in California is 50 to 70 per cent

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## Study Shows Lower Cancer Toll Is Found Low Mormon For Mormons in Calif. Study

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lower-depending upon the site-than the cancer death rate for the entire state.

These findings lend increasing weight to arguments that lifestyle—as well as smoking, drinking and dietary habits—plays an important bat still unknown role in determining whether a person will die of cancer.

Both the Mormons and the Seventh Day Adventists place great emphasis on good health habits. They both stress eating a well balanced diet, including the use of unrefined grains and fresh fruits and vegetables. Most Seventh Day Adventists are vegetarians, while Mormons practice moderation in the eating of meat. Mormons try to get a good deal of exercise, and few of them are overweight.

Mormons also emphasize strong family life, and Dr. James O. Mason, a physician who is commissioner of health service for the Mormon church headquarters in Salt take City, said that marriages are considered to be made for "eternity."

"Maybe man's emotional status is of greater importance than we have thought," said Mason. "Maybe the extra bit of peace, quiet and harmony in some of our homes is good for physical as well as emotional health.

"Healthy emotional attitudes," he continued, "seem to have an effect on certain diseases.

Enstrom, who is neither a Mormon nor a Seventh Day Adventist, credits the lifestyle of the two religions with reducing the incidence of cancer deaths.

Other cancer experts aren't sure what causes the difference in death rates between Mormons and Seventh Day Adventists and the rest of the country. But Dr. Marvin Schneiderman of the National Cancer Institute in Bethesda said the lower death rates "are not normal.

The Mormon church, formally known as the Church of Jesus Christ of Latter-Day Saints, has about 2.2 million members in the United States. Most of them are in Utah, where they make up 73 per cent of the state's population. There are 400,000 Mormons in Califor-

Enstrom became interested in studying Mormons when he noticed that the cancer death rate in Utah is the lowest of any state in the nation—about 75 per cent of the national cancer death rate.

He found the differences between Mormons and the rest of the country even more strikng when he studied Utah County, near Provo, Utah, which is 85 per cent Mormon. Its cancer death rate is 65 per cent of the national rate.

Moreover, cancer death among Mormons in Utah is about two-thirds that of the cancer death rate of non-Mormons in the state.

To make sure that there is not something in the environment of Utah that caused the difference in the cancer death rate, Enstrom began studying Mormons in California, using church records.

The California study. which used church members only, instead of including non-Mormons who lived in Utah, produced even more striking figures. The cancer death rates were half of those for the California General population, and that proportion continues for sites not usually associated with tobacco or alcohol.

- Enstrom based his conclusion on a study of the 800 Mormon cancer deaths in Utah County over the past 20 years, 1,200 Mormon cancer deaths for the state of Utah in one year and 600 cancer deaths among California Mormons in the past two

Besides their ban on the use of tobacco and alcohol, their low consumption of coffee, tea and stimulant drugs and their moderate dietary habits, Enstrom thinks that the Mormons' emphasis on exercise enough sleep and keeping thin contributes to thier low cancer death rate.

But Mason, Mormon health commissioner, believes there may be something "The spiritual involved. church teaches that the spirit and the body are re-lated and that the body is the temple of God," he said.

Other religions also emphasize spiritual values, but studies in New York City have shown that Roman Catholics, Jews and members of the major Protestant faiths have the same cancer death rates as the rest of the country.

Smoking has been firmly linked to cancers of the lung and larynx, and it has been cited that alcohol is a contributing factor in cancer of the stomach.

Alcohol has been associated by some studies with cancer of the esophagus and cancer of the gastrointestinal tract.