

MEDICINE

Blood Pressure Readings Take Skill and Knowledge

► MEASURING BLOOD pressure takes more skill and knowledge than the average person realizes. The importance of accurate readings as a key to detection of abnormalities that may lead to heart and blood pressure disorders has been stressed by Dr. Carl J. Wiggers of Western Reserve University School of Medicine, Cleveland.

"We know that in many amusement parks and fairs one may obtain for a small fee not only a reading of the lines of one's hand or the bumps on one's head, but also of one's blood pressure. The operators in charge of such blood pressure machines probably give the subject a reading to the best of their ability, but it is highly questionable whether any of them have sufficient basic training to give correct readings," Dr. Wiggers warned.

"The patient whose blood pressure is being read is under the impression that the procedure consists simply of placing a cuff on the arm, inflating and deflating it, and that in some simple but unknown way his blood pressure is being measured. It is not generally realized that the measurement of blood pressure is not a mechanical affair, such as taking temperature and ascertaining weight. On the contrary, accurate readings depend fully as much on the technique, skill, and knowledge of the operator as on the accuracy of the instrument. Everyone will realize that it is not only important to get a reading of blood pressure, but that the reading be as accurate as possible."

To assist in assuring the validity and uniformity of blood pressure readings, the American Heart Association has published a new guide for physicians, titled, "Recommendations for Human Blood Pressure Determinations by Sphygmomanometer."

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Ferns

► LATE AUTUMN is a good time to pay attention to the ferns. We are kept pretty busy on our woodland rambles in spring and summer, and even during early autumn, trying to hold ourselves abreast of the rapid procession of blossoming things.

However, when frosts have laid waste the petals and crippled the insects that make them worth producing, then we can turn our attention to the lesser but older relatives of the flowering plants, now consigned to back seats by the hustling later comers.

The patient ferns have for the most part waited for us, too. Ferns do not shed their leaves as broad-leaved trees and bushes do. While some of them, like the maiden-hair and the bladderwort, may have withered and curled beyond the possibility of examination, there are very many species that are true evergreens, holding up their tough, strong little leaf-blades dark green and alive even when buried deep in snow.

And there are others, like the royal fern and the spleen wort, that keep green in defiance of frost until really heavy cold weather strikes them, and then, though brown and dead, still hold their shapes well enough to be worth study.

Even when the vegetative leaves have all been struck down, there still remain those odd structures which many ferns produce—pre-Cretaceous analogues of flowers. "Fertile fronds," botanists call them; they bear clouds of spores that fly out like brown dust when you brush against them.

You will find these among the sensitive ferns and cinnamon ferns. Others, like the Christmas fern, fashion their fertile fronds like the non-sporulating sterile ones, except that on the backs of the leaflets—perhaps only the leaflets near the tip—we find the little brown dots where the spores are borne.

The ferns that we select for decoration are usually the sterile fronds, for the fertile ones are not so graceful, and many uninformed people think that the brown spore cases are a fungus.

The Christmas fern, being very firm in texture, is much used in holiday decoration, from whence comes its common name, much easier to remember than *Polystichum acrostichoides*, its real name. It grows best in well-shaded woodlands, preferring a spot near trees that shed their leaves rather than near evergreens. Indeed, full sunshine has been known to kill this plant.

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GEOLOGY

Fossil Earthquake Fault Discovered in California

► AN EARTHQUAKE fault similar to California's famous San Andreas fault—which destroyed San Francisco in 1906 and has shaken the state severely many times since—has been located in the Tehachapi mountains.

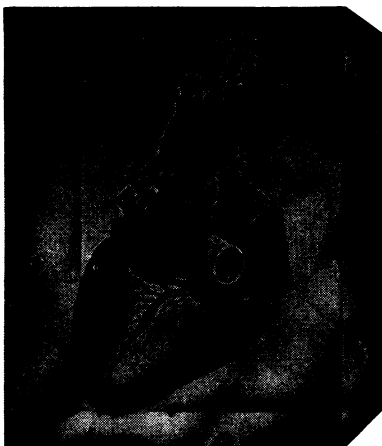
However, Californians or visitors to the West Coast need not lose any sleep over the discovery. It is what geologists call a fossil fault and has not been active for at least 2,000,000 years and maybe more.

It is named the San Gabriel fault and was located by Dr. John C. Crowell, assistant professor of geology at the University of California at Los Angeles, about seven miles south of U. S. Highway 99 near the little town of Gorman, about half way between Los Angeles and Bakersfield.

Apparently active during the Middle Miocene, Pliocene and part of the Pleistocene periods, 20,000,000 to 2,000,000 years ago, the San Gabriel fault is described by Dr. Crowell as showing a displacement some 20 miles from its original position. Like the San Andreas fault, the San Gabriel moved with a sideways motion.

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