MEDICINE

New Vitamin B Reported

Named vitamin B_{14}, although in origin and function it resembles a hormone, scientists hope it will yield clues to cancer and pernicious anemia.

➤ A NEW B vitamin which may give clues to problems of both cancer and pernicious anemia is reported by Drs. Earl R. Norris and John J. Majnarich of the University of Washington at Seattle in SCIENCE (Jan. 14).

These scientists call the vitamin B_{14}, but say that in origin and function it may be more a hormone than a vitamin. It was isolated in crystalline form from human kidney excretions.

A tiny amount of this new vitamin checks the reproduction of cancer cells, specifically those of the Brown Pearce tumor, in test tube experiments. But it increases production of red blood cells in bone marrow. This effect also was found in test tube experiments.

The vitamin's effect on red blood cell production was about the same as that of enzyme systems in the stomach which are one of two factors necessary to prevent pernicious anemia. The enzymes act on anti-anemia substances, such as folic acid, to increase red blood cell production. But while vitamin B_{14} has the same effect as the chemical product of enzyme action on folic acid, the scientists do not think it is the same chemical.

Cancer authorities warn that while the vitamin's anti-cancer effect has theoretically important implications, a "wait and see" attitude must be taken with regard to practical applications. They point out that the road from test tube results to human applications is long and frequently disappointing.

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ASTRONOMY

Meteorites Identified

➤ METEORITE hunters can check their findings—free of charge—with the Smithsonian Institution in Washington to discover if what they picked up is really a pebble from heaven.

Fully 20 to 25 meteorites are sent there each month for identification, but few prove to be genuine. Slag or cinders are most commonly mistaken for meteorites, states E. P. Henderson of the Institution.

The Smithsonian has been collecting and studying meteorites for nearly 100 years. Today it has one of the largest collections in the world. If your find is better than specimens already on hand, they will undoubtedly offer you a good price for it.

Nearly 800 of these bits of rock from outer space have been collected by the Smithsonian. Some were actually seen as "shooting stars" to flash across the heavens before they struck the earth. Portions of two noteworthy stony meteorites observed to fall over Italy nearly a century ago have just been received.

The Smithsonian collection is remarkably complete. Specimens in the group represent 70% of all the known falls in the United States, and 52% to 55% of all the known falls of the world.

If you believe you have found a meteorite, compare its weight with that of other stones in the field. All meteorites are heavy, much heavier than the average rock. Examine it closely; meteorites never have cavities or pores like those found in slag or cinders.

A good idea of how a meteorite should look may be obtained by studying those in a museum or viewing pictures of the more famous ones. In general, meteorites are rounded or irregular.

Meteorites are roughly classified as iron and stony ones. An iron meteorite is the more easily identified, which accounts for the fact that museums have on hand many more of the iron variety. It is attracted by a magnet. It is easy to spot as chunks of metal are seldom scattered about. It is not brittle like stone. If scratched deeply with a file, a fresh metal surface is exposed.

A stony meteorite usually also contains a bit of iron. If you look around the field in which it is found, it differs greatly from other stones nearby. Great numbers of meteorites are rarely found in any one place.

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PHYSIOLOGY

You Can Hear Your Heart Beating in a Quiet Room

➤ YOU CAN hear your own heartbeat, without the aid of a doctor's stethoscope, when you are sitting alone in a very quiet room at night.

The sound will fool you if you are expecting a lub-dub. It is very faint and like gasping.

The reason you can hear it is because the ear drum is richly supplied with blood vessels, Dr. Robert W. Lawson, of the University of Sheffield, England, explains in a note to the British scientific journal, NATURE. (Nov. 13, 1948).

Each surge of blood through the arteries of the ear drum makes the drum swell slightly, he reasons. Each of these movements causes a little tap of the hammer bone in the middle ear which in turn starts the chain of stimuli that you recognize as sound.

Dr. Lawson first became aware of the ear giving a sensation in response to the heartbeat when he was listening to the radio. Listening to a humming sound, when the program was not on, he was conscious of a rhythmic pulsation in the intensity of the humming. Then, when burning damp logs in the fireplace, he noticed a similar rhythmic pulsation in the sound of the steam escaping from the ends of the logs. It was slightly more marked in the higher-pitched hiss produced when drops of water from the logs fell onto the hot bars of the grate.

The pulsation from the radio, he then noticed, was in time with that from the fire, and both were the same rhythm as his heartbeat, he found when he felt his pulse.

Being a physicist, Dr. Lawson next made some experiments with a beat-frequency oscillator fed to a pair of head phones. The pulsation effect was the same at frequencies from 50 cycles per second up to the limit of his hearing. Biting the teeth together firmly reduced the intensity when listening to a constant source of sound. This, he believes, is caused by a variation in the tension of the ear drum brought on by the muscular effort of biting.

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WILDLIFE

Good Bird Dogs Acclaimed As Aids in Conservation

➤ WELL-TRAINED bird dogs are recommended as game-savers by Dr. Ralph E. Yeatter of the Illinois Natural History Survey, Urbana, Ill., in a new publication, (BIRD DOGS IN SPORT AND CONSERVATION).

Their value is realized in two ways, Dr. Yeatter points out. The first is direct and obvious: hunters served by good retrievers capture crippled birds, quickly end their sufferings and add them to their legitimate bags. On the other hand, cripples often elude hunters without dogs and hide out while they slowly die; in the meantime the hunters go on and shoot other birds to complete their bags, since the cripples do not "count."

The second use of bird dogs in conservation is as aids to wildlife researchers. A wildlife man, however experienced, can make a better survey of a given nesting area if he has the assistance of the keener finding senses of a firstclass pointer or setter.

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