From the library

Remembrance of things past
One of Galen’s favourite subjects was the eye, and in his De partibus corporis humani libri VIII and in the Parts of the Body he wrote a section entitled “On the eyes and their accessory organs.” In it he provided descriptions of the aqueous and vitreous humours and many parts of the eye, including the conjunctiva, cornea, iris, lens, choroid, and sclera. He also described the retina, an anatomical term that has as its root the Latin word rete, meaning “net.” Galen likened the retina to a net because it fell around the lens during eye dissection in the same way that a limp net might fall around a fish. (Stanley Finger. Minds Behind the Brain: A History of the Pioneers and their Discoveries. Oxford: Oxford University Press, 2000:45)

Website for “drug free practitioners”
The pharmaceutical industry gave $7.2 billion worth of samples to US doctors in 1999. Now a group of physicians who call themselves No Free Lunch plans to publicise a list of physicians who have pledged to be “drug company free.” Doctors who sign up to the drug free practitioners list must pledge to be free of company money and influence in their drug prescribing. The group was set up by a group of physicians who call themselves No Free Lunch. Last year the group paid out $1.2 million to US doctors in the form of samples to US doctors in 1999. Now the group is publishing a list of physicians who have pledged to be “drug free practitioners”. The group’s website is www.nowfreelunch.org (Western Journal of Medicine 2001;174:163).

Tuna burgers can make you sick
Histamine poisoning occurs when people ingest fish in which bacteria have converted histidine to histamine, a process which can usually be retarded by storing the fish at low temperatures. A recent study in North Carolina documents that this seemingly rare event has dramatically increased. Tuna burgers are a relatively new item on the health conscious menu of some restaurants and they were the major food source for the histamine poisoning reported in the paper. Tuna ground burgers can be susceptible to both temperature fluctuations and bacterial contamination. (JAMA 2001;285:1327–30)

Scrapie: is it a threat to humans?
Scrapie is a widespread disease in sheep caused by an abnormal prion. Traditional thinking has been that it does not affect humans. A recent study, however, in which brain tissue from a sheep with a French strain of scrapie was injected into mice caused damage to the brain that was indistinguishable from Creutzfeldt-Jakob disease. This is the same disease that is thought to be caused at least in part by eating beef from an animal contaminated with mad cow disease. There are more than 20 strains of scrapie and it is unclear how many if any may be responsible for human infection with Creutzfeldt-Jakob disease. (Proceedings of the National Academy of Sciences 2001;98:1142)

The molecular basis for Huntington’s disease
Huntington’s is an incurable inherited brain disease. It is caused by a mutated version of the huntingtin gene that results in the protein having many copies of the amino acid called glutamine. Clumps of huntingtin bind other essential proteins that interfere with the normal relay of neural signals. One such protein is called CBP. CBP, like huntingtin, contains a short polyglutamine stretch. Investigators have created a form of CBP with no glutamine included, which makes it immune to the damage initiated by huntingtin. Further laboratory studies are under way. (Science 2001;291:2423)

Heart disease and infections
Heart disease and its association with infections suggest that atherosclerosis may be initiated by inflammatory changes within the vessel walls. It now seems that rather than a single pathogen being responsible for these events, more chronic infections or the sum total of years of infections may be important in initiating this process. A long term study in Italy has shown that people with more antibodies to heat shock proteins have more atherosclerosis and heart attacks. Heat shock proteins protect enzymes from damaging stresses and are similar in viruses, bacteria, and humans. Heat shock proteins may thus initiate damage to our own arteries. Human trials are under way to see if treating chlamydia infections can improve atherosclerosis. (New Scientist 2001;2284:18)

Reading habits of physicians
The busy life of a practising physician does not provide a lot of time for reading and studying new information in medical journals. A recent study of internists from the AMA suggests that physicians spend approximately four hours per week reading medical journal articles. However, they also report that the physicians studied admitted to reading only the abstract in 63% of the read articles. (Journal of Internal Medicine 2000;15:881–4)

Astronomers and refractive surgery
LASIK is a relatively successful procedure for correcting refractive errors. The technique may be improved by the use of adaptive optics—a system that measures light distortion and corrects the deformable mirrors. This is a technique currently used by astronomers to correct atmospheric distortions. Researchers are now testing half a dozen or so instruments that rely on adaptive optics for improving laser eye surgery. (Scientific American 2001;284:24)

Long term use of aspirin and non-aspirin NSAIDs reduces the risk of colorectal cancer
The use of non-steroidal anti-inflammatory drugs (NSAIDs) has been associated with the reduced risk of colorectal cancer but limited information has been available on the effect of individual non-aspirin drugs. Moreover, the dose-response relation of aspirin in reducing this cancer has not been described. A recent population based cohort study with secondary case-control analysis now supports the existence of an important protective effect of non-aspirin NSAIDs against colorectal cancer. Moreover, it suggests a reduction in the risk of cancer for aspirin doses of at least 300 mg daily. One year treatment with NSAIDs would prevent one case of colorectal cancer in a population of 1000 people between the age of 70 and 79 years. (Epidemiology 2001;12:89–93)

Women suffer more brain damage from chronic alcoholism than men
A recent study of chronic alcoholics investigating the degree of brain damage utilising MRI studies suggests that women have significantly more damage than men. Direct comparisons of alcoholic men and women show that the proportion of intracranial contents occupied by grey matter were considerably smaller in alcoholic women than alcoholic men. These results are consistent with greater sensitivity to alcohol’s neurotoxicity among women. (American Journal of Psychiatry 2001;158:198–204)

“Lifestyle” diseases
The six major lifestyle diseases are coronary heart disease, stroke, lung cancer, colon cancer, diabetes, and chronic obstructive pulmonary disease. These accounted for 43% of all deaths in 1998 in the United States. Over the past decade there has been a significant decrease in many of these disorders. Recent studies suggest, however, that additional decreases may be difficult. This may be due primarily to obesity in the developed world which increases the risk for vascular disease. Indeed, some studies suggest that lifestyle diseases will climb dramatically after 2010 when the baby boomer enters old age. (Scientific American 2001;284:30)

Breast cancer survival depends on where you were treated
A number of studies have documented variation in treatment patterns of breast cancer by treatment setting or by regions of the country. A recent retrospective cohort study of 938 cases of breast cancer suggests that women with node negative breast cancer and tumours less than or equal to 20 mm in diameter who were treated in a teaching hospital had significantly better survival rates than women with similar tumours who were initially seen at a community hospital. Survival among women with larger tumours was not statistically significant for the two types of hospitals. (CMAJ 2000;164:183–8)

Can PET scanning diagnose schizophrenia?
Establishing a diagnosis of schizophrenia can sometimes be difficult in the early course of the disease. A system developed at the University of British Columbia in Vancouver, using PET scanning suggests that an analysis of blood flow in the temporal and parietal lobes may be a way to establish the diagnosis of schizophrenia. In a small study of four healthy subjects and nine patients diagnosed as schizophrenic, this neural network analysis of PET scans had 100% accuracy in predicting which patients were affected. Further studies are necessary since a specific brain abnormality in schizophrenics has not previously been described. (Biologic Cybernetics 2001;84:117–20)

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