adults, thirty-two blood donors before their first donation and eighteen joiners.

I studied the effect of alimentary lipaemia induced by the ingestion of 0.75 g/kg body weight of butter; the diffusible fraction of serum cholesterol did not change significantly. Sedentariness associated with mental stress is a strong atherogenic factor, and I investigated this association in the sera of twenty healthy students. Measurements made immediately after the summer holidays were compared with those found during February and June when the students were taking their examinations, and after the following summer holidays. Finally, I examined sera from patients with diabetes mellitus, incipient cerebral atherosclerosis, atherosclerosis obliterans and myocardial infarction (Table 1).

Table 1 Diffusible Cholesterol in Various Subjects

Group	No.	Diffusible cholesterol in mg % a.m.	s.e.m.	Total cholesterol in mg % a.m.
Blood donors				
Males	17	12.5	1.7	160
Females	15	5.4	0.9	184
Joiners	18	7.0	0.8	162
Students in October 1969				
Males	10	15.3	2.4	165
Females	10	10.1	1.8	173
Students in February 1970				
Males	9	24.2	1.7	171
Females	8	18.5	2.7	173
Students in June				
Males	5	17.8	0.6	179
Females	7	18.7	1.7	195
Students in October				
Males	5	8.4	3.3	175
Females	10	12.0	4.5	179
Incipient cerebral atherosclerosis				
Males	2	30.3		202
Females	7	16.0		215
Infarctus myocardii				
Males	9	23.3		211
Females	2	16.5		239
Atherosclerosis obliterans				
Males	10	14.0	3.6	216
Diabetes mellitus				
Children	5	10.5	1.1	198
Males	12	22.4	5.3	253
Females	17	20.6	3.1	230

No., number of examinations; a.m., arithmetical mean; s.e.m., standard error of the mean.

The data obtained from the sera of healthy blood donors show a significant sex-related difference in the value of the diffusible fraction of serum cholesterol ($P=0.01$). In umbilical cord sera, which are known to have a low cholesterol content, there was no correlation between total cholesterol and its diffusible fraction.

The rapid increase in the diffusible fraction of serum cholesterol in students during their examinations is particularly interesting. Although cholesterol metabolism could be affected by changing nutritional conditions, the 54% increase in the diffusible fraction of students, compared with the lack of change in blood donors makes me believe that the increase is caused chiefly by the atherogenic factor.

Diffusion is one of the factors which determine the distribution of substances in an organism, and diffusibility in its turn is considerably influenced by molecular dimensions. Small molecules, because of their association with plasma proteins, lose their initial diffusion properties. Therefore the distribution of protein-bound substances is limited according to the distribution of their carriers. For this reason to obtain data concerning the amount of plasma cholesterol supplied to tissues the diffusible fraction must be determined.

The data reported here demonstrate an increase in the diffusible fraction of serum cholesterol in atherogenic conditions. The loose binding of lipids to carriers in the blood facilitates their de-adsorption and deposition in the vascular wall[6]. Thus the increase in diffusible fraction, that is the cholesterol available to the tissues, is particularly interesting with regard to the pathology of atherosclerosis.

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Errata

IN the article "Leucocyte-transforming Agent from Mononucleosis is Ether-stable", by R. Shihman Chang (*Nature New Biology*, **237**, 273; 1972), the sentence beginning on line 6, column 2, page 274, should read "This interpretation does not exclude the possibility that *in vitro* replication of this ether-stable transforming agent in lymphoid cells requires the EBV as a helper".

IN the article "Sex Pheromone in the Aphid *Megoura viciae*", by David Marsh (*Nature New Biology*, **238**, 31; 1972), the labelling on the ordinate of Fig. 2 should read "Mean number of males responding".

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