

Medical Examination of Students Canadian Officers' Training Corps Dalhousie University

JOHN MERRITT, M.D., C.M., F.R.C.S. (C.) and JEAN A. PEABODY

Halifax, N. S.

THIS survey is being published in the hope that it may be of interest to physicians who are currently engaged in making this type of examination. It has been compiled through the generous co-operation of Dr. H. G. Grant, Dean of the Medical Faculty of Dalhousie University. Publication in the BULLETIN was arranged by permission of the District Medical Officer, Military District No. 6, Halifax, N. S.

During the fall of 1940, along with the annual physical examination of all students attending Dalhousie University, further medical records were made upon male students only, excluding any who were not British subjects. The findings were reported on the Department of National War Services forms for recruits, wherein each student was categorized in accordance with army standards. On this basis was determined the student's fitness for military training during the ensuing college year. From an analysis of such records the following tables have been prepared.

TABLE NO. 1—PLACE OF BIRTH

	Number	Per Cent
Nova Scotia.....	326	60.3
Other parts of Canada.....	144	26.6
Other British countries.....	50	9.2
Foreign.....	21	3.9
Total.....	541	100.0

Tables 1 and 2 show the distribution of the 541 examined students by place of birth and by permanent residence. The majority were Canadian-born, each province being represented. Nearly all the students born in other British countries were those from Newfoundland.

TABLE NO. 2—PERMANENT RESIDENCE

	Number	Per Cent
Nova Scotia.....	402	74.3
Other parts of Canada.....	100	18.5
Other British countries.....	36	6.6
Foreign.....	3	.6
Total.....	541	100.0

As might be expected, the number of students reported as residing in Nova Scotia is higher than the number with birthplace there. Many establish residence in the province upon entering the University.

TABLE NO. 3—ARMY CATEGORY

	Number	Per Cent
A.....	354	65.4
B 1.....	56	10.4
B 2.....	12	2.2
C 1.....	13	2.4
C 2.....	22	4.1
D.....	1	.2
E.....	83	15.3
Total.....	541	100.0

About two-thirds or 65.4 per cent of all examined students were classed in Category "A". Minor disabilities caused a further 10.4 per cent to be placed in "B.1". (The handbook of general instructions to examiners suggests that the dictum "Better a good 'B' man than a doubtful 'A'" should be borne in mind.) Categories "B 2" and "C 1" contain relatively few. The larger number assigned to the next lower category, "C 2", denotes students with disabilities which were fairly important, but were still not serious enough to cause rejection for enlistment. Category "D" is reserved for soldiers who are temporarily unfit. Over 15 per cent of all students were found unfit for service and assigned to category "E".

TABLE NO. 4—AGE DISTRIBUTION

Age Group	Number	Per Cent
15-19.....	147	27.2
20-24.....	302	55.8
25-29.....	84	15.5
30 and over.....	8	1.5
Total.....	541	100.0

Many of the students at higher ages are those registered in the professional faculties.

TABLE NO. 5—HEIGHT

Inches	Number	Per Cent
62-63.....	11	2.0
64-65.....	46	8.5
66-67.....	122	22.6
68-69.....	173	32.0
70-71.....	128	23.6
72-73.....	46	8.5
74 and over.....	15	2.8
Total.....	541	100.0

The average height was 68.8 inches.

TABLE NO. 6—WEIGHT

Pounds	Number	Per Cent
100-109.....	3	.6
110-119.....	16	3.0
120-129.....	53	9.8
130-139.....	124	22.9
140-149.....	122	22.6
150-159.....	89	16.4
160-169.....	65	12.0
170-179.....	32	5.9
180-189.....	22	4.1
190 and over.....	15	2.7
Total.....	541	100.0

There was wide variation in weight. The average was 147.1 lbs.

TABLE NO. 7—DEVELOPMENT

	Number	Per Cent
Good.....	403	74.5
Fair.....	122	22.5
Poor.....	16	3.0
Total.....	541	100.0

The general development was considered poor for only 3 per cent of the total.

TABLE NO. 8—CHEST MEASUREMENT ON FULL EXPANSION

Inches	Number	Per Cent
30-31.....	2	.4
32-33.....	20	3.7
34-35.....	141	26.1
36-37.....	202	37.3
38-39.....	125	23.1
40-41.....	37	6.8
42-43.....	8	1.5
44 and over.....	6	1.1
Total.....	541	100.0

A large proportion of all chest measurements taken at maximum expansion fell between 34 and 39 inches (inclusive).

TABLE NO. 9—RANGE OF CHEST EXPANSION

Inches	Number	Per Cent
1.....	6	1.1
2.....	160	29.6
3.....	271	50.1
4.....	89	16.4
5 and over.....	15	2.8
Total.....	541	100.0

The difference in chest measurement at inspiration and expiration was recorded as 3 or 3½ inches for about one-half of the students. Changes of 2 and 4 inches were also frequent.

TABLE NO. 10—HEARING

	Number	Per Cent
Normal.....	507	93.7
Impaired—right.....	13	2.4
left.....	13	2.4
both.....	8	1.5
Total.....	541	100.0

Impaired hearing of all degrees at the time of examination was noted in 34 students, or 6.3 per cent of the total.

TABLE NO. 11—MOUTH AND TEETH

	Number	Per Cent
Normal.....	512	94.6
Teeth requiring treatment.....	18	3.3
Tonsils unhealthy.....	11	2.0
Total.....	541	99.9

The condition of the mouth and teeth was described as healthy for 94.6 per cent of the students. Examination by a dentist would probably have revealed a much larger number requiring dental treatment.

TABLE NO. 13—LEAST VISION, WITH GLASSES, OF STUDENTS WEARING GLASSES

Vision	Number	Per Cent
20/ 15.....	13	5.6
20/ 20.....	131	57.0
20/ 30.....	48	20.9
20/ 40.....	13	5.6
20/ 60.....	8	3.5
20/ 80.....	6	2.6
20/120.....	3	1.3
20/200.....	6	2.6
<20/200.....	2	.9
Total.....	230	100.0

Glasses were worn at the time of examination by 230 students, or 42.5 per cent of the total. When measured according to the vision of the eye with the least vision where there was a difference, the visual acuity of some students wearing glasses appears to need improvement. Distance vision was less than 20/40 in one or both eyes for 10.9 per cent of the group wearing glasses.

TABLE NO. 14—LEAST VISION OF STUDENTS NOT WEARING GLASSES

Vision	Number	Per Cent
20/ 15.....	14	4.5
20/ 20.....	224	72.0
20/ 30.....	51	16.4
20/ 40.....	9	2.9
20/ 60.....	5	1.6
20/ 80.....	3	1.0
20/120.....	3	1.0
20/200.....	1	.3
<20/200.....	1	.3
Total.....	311	100.0

Among students not wearing glasses 4.2 per cent had vision rated less than 20/40 in one or both eyes.

TABLE NO. 15—PERSONAL HISTORY

	Number
Glasses previously worn.....	306
Bronchitis or asthma.....	38
Ear trouble.....	32
Foot trouble.....	27
Nasal trouble.....	25
Stomach or intestinal trouble.....	21
Rupture.....	19
Rheumatism.....	17
Heart disease.....	14
Eye disease.....	13
Previously rejected for military service.....	13
Varicose veins.....	8
Tuberculosis.....	7
Kidney or bladder disease.....	7
Nervous or mental disease.....	6
Other.....	5

A history of having had one or more of the conditions listed in Table 15 was given by 367 students, or 67.8 per cent of the total. Glasses were previously worn by 306 students in all, or 56.6 per cent.

TABLE NO. 16—NUMBER OF IMPAIRMENTS AMONG STUDENTS

	Total	Army Category					
		B 1	B 2	C 1	C 2	D	E
Eye, ear, nose and throat.....	74	20	9	5	10	..	30
Heart.....	69	15	3	8	3	..	40
General development.....	62	26	7	4	5	..	20
Chest.....	37	7	..	2	1	..	27
Legs and feet.....	34	10	2	2	9	1	10
Abdomen.....	32	7	1	..	5	..	19
Other.....	19	3	1	2	3	..	10

The 354 students placed in category "A" (Table 3) had no noteworthy impairments. Table 16 gives the total number of impairments found among the remaining 187 students assigned to lower categories. Over half of this group had several different impairments.

Disabilities of the eye, ear, nose and throat were most numerous, but many of these, such as moderately defective vision and partially impaired hearing, were not serious.

Impairments of the heart came next in frequency and caused assignment to category "E" more often than disability of any other part.

Impairments of development included chiefly weight deviations, faulty posture and poor physique.

Among chest impairments a history of bronchitis or asthma, recent pleurisy and tuberculosis were the chief reasons for assignment of the student to category "E".

Legs and feet disabilities appeared in all categories. Flat feet was the principal condition here.

Among impairments involving the abdomen, hernia was most frequently mentioned.

The seven tables which follow are a further analysis of Table 16. They show in greater detail the frequency with which each of the different impairments was mentioned. These latter tables are appended to the study because it is believed that the variety of conditions found among this group of college students will provide an example of particular interest to many who make similar medical examinations throughout the country.

TABLE NO. 16A—EYE, EAR, NOSE AND THROAT

	Total	B 1	B 2	C 1	C 2	D	E
Vision defects.....	46	15	7	1	6	..	17
Strabismus.....	2	1	..	..	..	..	1
Blind eye.....	1	..	..	..	..	..	1
Diplopia.....	1	..	..	..	..	..	1
Corneal scar.....	1	..	..	..	..	..	1
Impaired hearing.....	9	2	..	2	2	..	3
Perforated ear drum.....	3	..	..	2	..	..	1
Disease in ear.....	1	..	..	..	..	..	1
Otosclerosis.....	1	..	..	..	..	..	1
Nasal obstruction.....	2	1	..	..	..	..	1
Deviated septum.....	1	1	..	..	..	..	..
Chronic congestion.....	1	..	..	..	1	..	..
Suspected chronic sinusitis.....	1	..	1	..	..	..	..
Dental condition poor.....	2	..	1	..	..	..	1
Tonsils diseased.....	2	..	..	..	1	..	1
Total.....	74	20	9	5	10	..	30

TABLE NO. 16B—HEART

	Total	B 1	B 2	C 1	C 2	D	E
S. M.....	18	6	..	2	2	..	8
F. S. M.....	9	4	2	2	..	..	1
Cardiac enlargement.....	7	..	..	1	..	..	6
Possible cardiac enlargement.....	1	..	..	..	1	..	..
Heart displaced.....	1	..	..	..	..	..	1
Organic heart disease.....	8	..	..	..	..	..	8
Rheumatic heart disease.....	8	..	..	..	..	..	8
Mitral regurgitation.....	1	..	..	..	..	..	1
Abnormal blood pressure.....	10	4	1	1	..	..	4
Pericarditis.....	2	..	..	..	..	..	2
Tachycardia.....	3	1	..	1	..	..	1
Slow pulse.....	1	..	..	1	..	..	..
Total.....	69	15	3	8	3	..	40

TABLE NO. 16-c—GENERAL DEVELOPMENT

	Total	B 1	B 2	C 1	C 2	D	E
Under-weight	24	12	4	1	1	..	6
Over-weight	2	..	..	..	1	..	1
Loss of weight	1	..	..	..	..	..	1
Scoliosis	3	1	..	1	..	..	1
Lordosis	1	..	1	..	..	..	..
Curvature	1	..	..	..	..	..	1
Deformity	1	..	..	..	..	..	1
Faulty posture	5	3	..	..	1	..	1
Slight build	1	1	..	..	..	..	..
Small stature	1	1	..	..	..	..	..
Impaired development	7	5	1	1	..	..	..
Poor physique	3	..	..	..	2	..	1
General condition poor	4	2	..	..	..	..	2
Constitution subnormal	1	..	..	1	..	..	..
General debility	1	1	..	..	..	..	..
General appearance poor	2	..	..	..	..	..	2
Polyglandular and endocrine disturbance	2	..	..	..	..	..	2
Under-age	2	..	1	..	..	..	1
Total	62	26	7	4	5	..	20

TABLE NO. 16-d—LEGS AND FEET

	Total	B 1	B 2	C 1	C 2	D	E
Traumatic disability, knee	1	..	..	..	1	..	..
Fluid, swelling knee joints	1	..	..	..	..	1	..
Varicose veins	3	..	..	2	1	..	..
Atrophy muscles, leg	4	..	..	..	1	..	3
Talipes equinus	2	..	..	..	1	..	1
Shortening leg	3	..	..	..	1	..	2
Bunion	1	..	..	..	..	..	1
Flat feet	16	7	2	..	4	..	3
Deformed toe	1	1	..	..	..	..	..
Ingrown nails	2	2	..	..	..	..	..
Total	34	10	2	2	9	1	10

TABLE NO. 16-e—CHEST

	Total	B 1	B 2	C 1	C 2	D	E
Bronchitis	6	3	..	..	..	..	3
Asthma	5	..	..	..	..	..	5
Bronchitis or asthma	1	..	..	1	..	..	..
Pleurisy	2	..	..	..	..	..	2
Pleurisy with effusion	2	1	..	..	..	..	1
Diminished breath sounds	3	..	..	..	..	..	3
Diminished percussion note	2	2	..	..	..	..	..
Rhonchi	1	..	..	..	1	..	..
Haemoptysis	1	..	..	..	..	..	1
Pulmonary tuberculosis	4	..	..	..	..	..	4
Suspected pulmonary tuberculosis	1	..	..	..	..	..	1
Tuberculous gland	1	..	..	..	..	..	1
Old tuberculous spine	1	..	..	..	..	..	1

TABLE NO. 16E—CHEST—(Continued)

	Total	B 1	B 2	C 1	C 2	D	E
Minimal lesion.....	1	..	..	..	..	..	1
Suspicious lesion.....	3	..	..	..	..	..	3
Pulmonary fibrosis.....	1	..	..	..	..	..	1
Calcified nodules.....	1	..	..	1	..	..	..
Infiltration apex.....	1	1	..	..	..	..	..
Total.....	37	7	..	2	1	..	27

TABLE NO. 16-F—ABDOMEN

	Total	B 1	B 2	C 1	C 2	D	E
Indigestion.....	1	..	..	..	..	..	1
Jaundice.....	1	..	..	..	..	..	1
Suspected peptic ulcer.....	1	..	..	..	..	..	1
Duodenal ulcer.....	1	..	..	..	..	..	1
Nephrectomy.....	1	..	..	..	1	..	..
Cystitis.....	1	..	..	..	1	..	..
Renal calculus.....	1	1	..	..	..	..	..
Renal glycosuria.....	1	1	..	..	..	..	..
Glycosuria.....	1	..	..	..	..	..	1
Albuminuria.....	2	..	..	..	1	..	1
R. B. C. deficiency.....	1	..	..	..	..	..	1
Abdominal pain.....	2	..	..	..	1	..	1
Chronic appendicitis.....	1	..	..	..	..	..	1
Hernia.....	8	1	..	..	..	..	7
Hydrocele.....	1	..	..	..	..	..	1
Varicocele.....	4	2	1	..	1	..	..
Undescended testicle.....	1	..	..	..	..	..	1
Cyst testis.....	1	1	..	..	..	..	..
Testis removed.....	1	..	..	..	..	..	1
Haemorrhoidal tag.....	1	1	..	..	..	..	..
Total.....	32	7	1	..	5	..	19

TABLE NO. 16-G—OTHER ABNORMALITIES

	Total	B 1	B 2	C 1	C 2	D	E
No reason given.....	1	..	1	..	..	..	..
Stammering.....	2	1	..	1	..	..	..
Nervous.....	3	1	..	1	..	..	1
Nervous breakdown.....	1	..	..	..	..	..	1
Tremor.....	3	1	..	..	1	..	1
Fits.....	1	..	..	..	..	..	1
Acne.....	1	..	..	..	1	..	..
Skin eruption.....	1	..	..	..	1	..	..
Chronic eczema.....	2	..	..	..	..	..	2
Osteomyelitis.....	2	..	..	..	..	..	2
Arthritis.....	1	..	..	..	..	..	1
Numbness.....	1	..	..	..	..	..	1
Total.....	19	3	1	2	3	..	10

DYSPEPSIA

A Review of One Hundred Cases

E. DAVID SHERMAN, M.D.

Sydney, N. S.

AFTER a study of gastro-enterological text, or literature, one cannot help but note the constant reiteration of authors that only a small percentage of cases complaining of dyspepsia or indigestion actually show organic lesions of the stomach or duodenum, after detailed clinical, laboratory, and roentgen examinations. The majority of digestive complaints are due to either sensory, secretory, or motor disturbances and are therefore functional rather than organic in origin.

The writer's interest was more closely drawn to this finding, when recently, after analyzing patients' records, it was surprising to find only a comparatively small number of these dyspeptic cases with a positive diagnosis of a lesion in the oesophagus, stomach, or duodenum. Some cases actually gave a history simulating ulcer, which diagnosis was borne out by the clinical examination. After further studies of the gastro-intestinal tract, these cases were diagnosed under the caption of Gastric Neurosis, Cholecystitis, Chronic Appendicitis, etc. Apropos of this is the cryptic aphorism of Moynihan, who once remarked that the stomach is so sensitive an organ that it cannot refrain from weeping when its neighbors are in trouble, and its voice may be so loud as to drown that of the others.

It was therefore decided to carefully analyze a series of one hundred cases of Dyspepsia examined and treated in private practice, and judge what results might be formulated or adduced from this survey.

CLASSIFICATION

In the causation of Dyspepsia are manifold conditions that make it essential to have a practical classification or division of this subject, founded primarily on the basis of etiology. This has been made possible by the marked progress of studies of the gastro-intestinal tract within recent years. A clarification of the subject is thus being attained and considerable confusion is being avoided which had existed previously due to erroneous concepts.

Hewes¹, Ryle², Eusterman³ and Balfour have classified Dyspepsia into four distinct types which they have found practical and satisfactory.

(1) Organic Dyspepsia—The result of organic disease of the stomach or duodenum, or of congenital or acquired anatomic abnormalities of the stomach, oesophagus or duodenum.

(2) Reflex Dyspepsia, dyspepsia of reflex origin, the result of disease of the appendix, gallbladder, and extrahepatic biliary ducts, pancreas, or intestines.

(3) Systemic Dyspepsia—The result of systemic disease or toxemia, including the disturbances of metabolism, of disease of the organs of internal secretion and deficiency states.

(4) Functional Dyspepsia—The result of functional gastric disturbances not resulting from demonstrable diseases elsewhere in the body. This included

the various types of gastric neurosis, gastric dysfunction, the result of biologic inadequacy or constitutional asthenia, and faulty habits of eating and living. The last mentioned give rise to the so-called habit dyspepsias.

FREQUENCY OF THE VARIOUS TYPES OF DYSPEPSIA

Blackford⁴, Foster⁵, Davis⁶ and Vandherhoof in separate studies compiled the following percentages in the frequency of the various types based on a total of over 7300 cases, and their findings of the four types were very similar.

Organic	Reflex	Systemic	Functional
11-14%	32-39%	18-20%	22-25%

In this series of 100 cases the frequency was:

Organic	Reflex	Systemic	Functional
14%	28%	22%	30%

It is therefore seen that only about 14% of the total number of cases in which the principal complaint was indigestion showed organic diseases of the stomach and duodenum. The reflex causes were twice that of the organic group, and were comprised predominantly of diseases of the gall bladder and appendicitis. The approximate relative frequency of these organic lesions, including gall bladder disease and appendicitis as causes of indigestion, in this series, was gastric ulcer 2, gastric carcinoma 5, duodenal ulcer 7, chronic appendicitis 4, and disease of the gall bladder 17. Disease of the gall bladder formed the largest proportion of cases.

Dwyer and Blackford⁷ reported in a large series of cases that gall bladder was the most frequent organic cause (21.3%) of gastric symptoms, and organic conditions in the stomach and duodenum accounted for only 15% of the cases.

In the reflex dyspepsia group, though comprised principally of cholecystitis and appendicitis cases, were also included cases of cirrhosis of the liver, carcinoma of the pancreas, intestinal adhesions, and pelvic inflammatory disease. In the systemic group were included cases of pulmonary tuberculosis, arteriosclerosis, alcoholism, myocardial disease, hyperthyroidism, various infections, neurological, toxemia, menopausal, bronchitic and allergic states. The functional group comprised about 30 percent of the cases, and are divided into the habit dyspepsias, gastric dysfunction, and gastric neurosis.

INCIDENCE OF AGE AND SEX

It was found that 35 percent of the cases of this series occurred in patients between the ages of nine and thirty—the youngest being nine years old. There were only five cases (5 percent) between the ages of nine and twenty. Forty-five per cent occurred between the ages of thirty and fifty, twenty per cent in patients from the ages of fifty to seventy. The largest individual group of patients were between twenty and thirty years old. Men formed the majority of the patients—fifty-nine men and forty-one women.

PHYSIOLOGY

It would be in order at this time to briefly review some of the salient features of gastric physiology according to newer concepts, which have a direct bearing on the various disorders of the stomach.

GASTRIC PAIN—The indication of gastric pain is that either abnormally strong irritants are present or there is hypersensitivity of the pain endings through pathological processes. Pains referred to in the epigastric region may be caused by strong rhythmic or tonus contractions of the pylorus. Carlson's⁸ views are that the pains associated with gastric or duodenal ulcer are partly due to direct stimulation of denuded nerves but largely to pyloric and duodenal contractions reflexly induced. The contractions do not necessarily exceed the normal in intensity, indicating that hyperexcitability of pain fibres exist in some cases. Pains simulating those of ulceration may however be caused by many other factors that give rise to augmented contractions. Therapeutic measures which reduce the gastric acidity (protein, food, or alkalis) reduce pains temporarily by decreasing the vigor of pyloric or duodenal contractions. Cannon⁹ states that the bulk of experimental evidence indicates that pain impulses are conducted exclusively by the splanchnic nerves.

NERVE SUPPLY AND FUNCTION—The gastro-intestinal tract from the cardia to and including the ileo-cecal sphincter receive their efferent parasympathetic supply from the vagus and their efferent sympathetic supply from the celiac, splanchnic, and mesenteric plexuses. Abundant evidence exists that afferent impulses also pass over both divisions of the autonomic nervous system. There is little question but that the ganglion cells of the intrinsic nervous plexuses (Meissner and Auerbach) constitutes the outlying cells (ganglionic) for the vagus nerve and possibly for the sympathetic system as well.

Section of either the vagi or splanchnic nerves results in an immediate retardation of gastric motor activity and decrease in tonus, but recovery occurs to such an extent that the only permanent effect of importance is the prolongation of its emptying time.

Stimulation of the vagus nerve invariably has an excitatory effect on contraction and tonus of both the fundus and corpus, but in the pyloric region, inclusive of the sphincter, excitatory effects occur only when tonus is low while inhibition results when the tonus is high. Stimulation of the splanchnic nerves causes chiefly inhibitory effects, but excitatory action may also occur when the tonus is low.

The effects of cutting or stimulating these nerves on intestinal movements are similar to those shown in the stomach. Vagus section on the whole tends to decrease the rate and intensity of the peristaltic waves, and splanchnic nerve section tends to increase both for awhile; but these effects do not persist.

The nervous mechanism permits communication between widely separated portions of the gastro-intestinal tract and in this way insures co-ordination in effort (e.g., gastro-colic reflex). Reflexes are often useful in producing a generalized inhibition of movement in all parts of the gastro-intestinal tract.

In addition to these numerous viscerovisceral reflexes the normal movements of the entire gastro-intestinal tract are affected to a marked degree by psychic states. Not only worry, fear and fright, but even states of uneasiness are frequently sufficient to produce changes which are sufficiently marked to alter the fluoroscopic patterns of the stomach and colon considerably. The reference of a feeling of "goneness" in moments of impending disaster is doubtless associated with inhibitions of movement and tonus and a consequent change in position of parts of the gastro-intestinal tract.

PYLOROSPASM is usually secondary to infections of the biliary ducts, gallstones, duodenal ulcers, appendicitis, etc. The condition consists phys-

ologically of powerful peristaltic waves and increased tonus of the pylorus, the latter preventing expulsions of chyme. Such spasm has three immediate consequences, viz: (a) period of intense pain (gastric colic) due to stimulation of nerve endings by excessive contraction and high intra-gastric pressure; (b) delayed expulsion of gastric contents, and (c) secretion of excessive quantities of acid gastric juice which adds to the bulk to be expelled. Similar pains and augmented secretion can be produced in the normal stomach by increasing intra-gastric pressure by means of the introduction of the balloons. The pains are not limited to the full stomach in pylorospasm induced by reflexes from the gall bladder, kidney and appendix; they occur also during hunger contractions when the stomach is empty. The efferent arc of the reflexes concerned is presumably over the vagus nerve, which on stimulation gives rise to similar spasms.

HYPERACIDITY—According to Carlson and others, pure gastric juice in man has an HCl concentration of 0.4 to 0.5 per cent. But normal chyme withdrawn for gastric analysis has a concentration of only 0.1 to 0.2 per cent. Very little evidence exists in favor of the view long held that hyperacidity denotes hypersecretion by parietal cells of the stomach. Pure normal gastric juice can have just as high an acidity as that found in the severest case of the acidity reported; therefore the acid content of pure gastric juice can be less, but apparently cannot be higher than normal. Consequently, whenever the acidity of chyme approaches or equals that of secreted gastric juice it is probably due to a deficiency of one or several of the intragastric or extragastric factors which normally act to dilute or neutralize secreted juice. Demonstrated hyperacidity of chyme following dietary indiscretions, abnormal mental states, or reflex actions from other portions of the alimentary tract and other organs can therefore be best interpreted as due to one or more of the following factors, viz: (a) increased rate of secretion of normal gastric juice; (b) delayed gastric evacuation, by virtue of which gastric contents more nearly acquire the acidity of pure juice, particularly toward the end of gastric digestion; (c) variations in secretion of neutralizing mucus, and to some extent to (d) failure of normal duodenal regurgitation.

A definite symptomatology is generally ascribed to hyperacidity of the chyme. Among the symptoms are gastric distress or pain, burning substernal pain (heartburn) and eructations of acid chyme. It is becoming increasingly more improbable that the symptoms are due to hyperacidity of chyme *per se*. Since the acidity never exceeds that of pure normal gastric juice, it is improbable that the gastric discomfort is due to chemical stimulation of nerve endings in the mucosa. Wiggers states that it is biologically unthinkable that the mucous membrane should be provided with pain fibres which are stimulated by its own secretations. Furthermore, introduction of such strengths of HCl into an empty stomach does not evoke discomfort or pain, and the periodic and variable character of the unpleasant sensations definitely points toward muscle tonus and contractions as their cause, i.e. abnormal motor phenomena of the stomach.

The oesophageal sensations known as heartburn also do not denote excess acidity; indeed some patients who complain of such sensations are found to have no excess acidity. Regurgitation of chyme with normal or even subnormal acidity is sufficient either to stimulate the oesophageal mucosa or cause changes in oesophageal tension which lead to pain or discomfort.

It is beyond the confines of this paper to discuss didactically the organic, reflex or systemic types of dyspepsia, for their role in the causation of dyspepsia are too well known and merits no special comment. In view of the fact that the functional group of this series totals approximately 30 per cent, the writer has deemed this group of such importance as to warrant devoting particular attention to this type.

As has been pointed out, functional dyspepsia is characterized by the fact that there is no demonstrable change or any discoverable anatomical basis in organs or tissues of the body. This diagnosis can only be made by the purely eliminative process, despite the fact that the majority of dyspeptic complaints are due to either sensory or motor disturbances, yet the responsibility of excluding an organic lesion is important, before the diagnosis of a purely functional dyspepsia is accepted.

The accuracy of the diagnosis of functional indigestion is discussed in a paper by Wilbur and Mills¹⁰ of the Mayo clinic published in 1938. They studied 354 cases with original diagnoses of nervous indigestion, functional dyspepsia or its equivalent. The patients returned to the Clinic for re-examination on an average of seven years after their original diagnosis. By selecting cases in which this re-examination was done, after some time, they hoped to be able to trace the cases in which organic disease was a significant etiologic factor and in which it was apparently overlooked at the original examination. It seems reasonable to believe that if dyspepsia was due to unrecognized organic disease, after seven years the development of symptoms and results of examination would disclose the organic disease in most cases.

The original diagnosis was confirmed in 85.6%, while in 14.4% an erroneous diagnosis was made. It is of interest that in a group of 354 cases in which diagnosis of functional dyspepsia was made, examination later revealed evidence of organic gastro-intestinal disease in only 11%. Whether in all these cases the organic disease was present at the time of original diagnosis and was responsible for the symptoms cannot be determined. In some cases, particularly in cases of gastric or duodenal ulcer, this seems likely. Analysis suggests that the lesions most likely to be overlooked or perhaps to develop during seven years are duodenal and gastric ulcers, and cholecystic disease. Concerning the possible sources of error it seems wise before making a diagnosis of functional indigestion to give much consideration to a patient who is a man and who presents a story suggestive of ulcer. In such cases thorough investigation is necessary and to the diagnosis of functional dyspepsia may be added the reservation that an unrecognized ulcer may be present or may develop subsequently. Eusterman states that thorough and systematic study of a patient justifies such diagnosis of functional dyspepsia without unduly worrying that some organic condition was overlooked.

HABIT DYSPEPSIA

Thirteen cases (11 men and 2 women) were relegated to the habit dyspepsia group. It was possible to elicit a definite history of dietary indiscretion in each case. Examination of these cases showed evidence of hyperacidity, while others presented evidence of pylorospasm with an irritable duodenal cap under Roentgen examination. The symptoms were pains after meals, belching of gas, heartburn, and eructations of acid fluid.

Amongst the patients were salesmen, who ate too heartily, too fast and at irregular intervals, of heavily seasoned and rich foods, smoked freely, and

kept late hours. This type of patient complained of "acid indigestion" and was taking alkaline powders and medications for symptomatic relief.

Several patients were in the habit of eating only fried and greasy foods, spicy dishes, and excessively hot foods. Overeating was found to be a factor in other cases.

The basis of therapy in these cases depends upon a systematic inquiry into the daily habits of eating and into the quantity, quality and method of preparation of the food ingested. Overeating is to be discouraged. Unbalanced diets which contain an excess of either protein foods such as meats, particularly fats or carbohydrates, or acid foods, may cause trouble. In addition, these patients may be partaking excessively of condiments, tea or coffee. Poor teeth with infection may be an important factor. Any excitement at meal-time should be discouraged, for the effect of emotion on gastric digestion is soon evident. The mode of preparation of food should be scrutinized. The preparation of meats and vegetables with an abundant use of fat may cause heartburn, belching and gaseous distress.

Correction of the dietary factor, which is the principal consideration in therapy, in addition to the use of antacid and antispasmodic mixtures, will alleviate this condition.

GASTRIC NEUROSIS

A diagnosis of gastric neurosis (nervous indigestion, functional indigestion, nervous dyspepsia) usually designates a condition in a group of patients who complain of gastric disturbance, without any organic disease of the stomach or elsewhere in the abdomen, apparently secondary to a state of psychoneurosis or chronic nervous exhaustion. The gastro-intestinal syndrome changes frequently, so that at one time the picture will be dominated by one symptom and at another time a symptom of another kind will predominate. There are usually concomitant psychasthenic complaints such as palpitation, poor circulation, fatigue and peculiar forms of headache. The digestive symptoms are characteristic only in their irregularity and uncertainty. The most usual complaints are of fulness and discomfort in the epigastrium, pains, eructation of gas, nausea, vomiting, and dysphagia. There is no definite relationship between the quantity and quality of the food taken and the type and degree of gastric disturbance. The symptoms are very dependent upon the state of mind of the individual at the time he partakes of a given meal.

It is essential to develop a psychiatric viewpoint in the history of these patients, because the origin of many disorders which apparently are results of organic visceral disease may be found in nervous or psychic backgrounds, or in environmental conditions.

There are other factors that have a decided bearing on the basis of these digestive disturbances. First, it is shown clinically and has been proven experimentally that mental states will affect the function of the gastro-intestinal tract. Worry, excitement, fright, or trauma may impair gastric motility sufficiently to provoke anorexia, nausea, even vomiting or gastric retention, inhibition of secretions, or constipation and diarrhoea. Secondly, persistence of occupational strain, introduction of the element of worry or anxiety, and any sustained emotional distress will hasten or make inevitable a breakdown. The neurasthenic state is featured clinically by nervous hyperirritability, fatigability, usually insomnia, headache and lassitude. There are complaints referable to the digestive and circulatory systems. Thirdly, an hereditary predisposition is one of the most common backgrounds of gastro-intestinal

neurosis. The parents may be neurotic or highly temperamental. Though the patients may be endowed with good physiques, the tendency to nervous irritability is manifest sooner or later, and the patients experience difficulty in adjusting themselves to their environment. Other patients inherit frail physiques, and physical or emotional stress soon brings on a state of exhaustion, nervousness, irritability, and functional visceral disorder. Women particularly come in this category.

Under this group are included nine patients—seven men and two women. The symptoms were variegated—flatulency, nausea and vomiting, epigastric discomfort and fulness, and pains. The symptoms had no definite relationship to the taking of food and were characterized by their inconstancy. Several patients showed evidence of nervous hyperirritability, fatigue, and headache. The gastric symptoms by their intensity reflected the general state of the nervous system. There was a definite family history of neurosis in four patients. Physical and clinical examinations did not reveal any abnormality. There was however hyperacidity in several of the patients.

An analysis of these cases from the psychic and emotional viewpoints, including the hereditary background and environment, showed that marital disharmony, business worries, anxiety, financial strain, phobia due to congenital deformity, occupation and environment were the psychic backgrounds to the onset of their visceral dysfunction.

The gastro-enterological staff of the Mayo clinic have described an entity which they have termed "ulcer-simulating type" of gastro-intestinal disturbance of psychoneurotic origin. This type is being seen with increasing frequency. The patients are chiefly male of the efficient, aggressive, and high-tension type. In the presence of fatigue or anxiety states, the ulcer simulating disturbances may appear and continue for a time after nervous or mental distress.

The symptoms are those of epigastric discomfort or pain usually localized, appearing one or more hours after meals, which may or may not be associated with a sense of fulness, and with pyrosis and belching. Nausea is infrequent, but vomiting may occur.

Roentgenologic evidence of ulcer is invariably absent, although at times there may be evidence of intermittent pyloric retention, the result of spasm or hypertrophy of the pylorus. Analysis of gastric content usually reveals no marked departure from normal values.

Some of these cases have been explored at operation which revealed no evidence of peptic ulcer but a definite thickening of the pyloric musculature resulting from muscular hypertrophy. The autonomic imbalance in these cases is predominantly that of vagal hyperirritability, and is characterized by evidence of pylorospasm with hyperchlorhydria and hypersecretion in some cases. Other evidences of vagotonia were spastic constipation; frequently cold, clammy, and cyanotic hands and feet, and sweating palms; however the circulatory manifestations of the so-called vagotonic type were usually absent. Hurst has referred to this type of case as the "duodenal ulcer type."

Eight cases are included in this category, which is approximately 25 per cent of the functional cases of indigestion in this series, thus testifying to the frequency of this type encountered in practice. The eight cases are comprised of five men and three women.

These cases were of the nervous and high-strung type. There was a definite psychoneurotic origin in all these cases, including fatigue and anxiety

states, overwork and unhappy marital life. The history definitely simulated that of an ulcer, epigastric pain occurring one to two hours after meals relieved by food or soda, accompanied by pyrosis and belching. Several cases stated that the pain occurred in the early hours of the morning and was relieved by milk. Examination revealed evidence of pylorospasm in all the cases with a spastic duodenal bulb that could be filled completely under fluoroscopic examination. The symptoms were definitely aggravated by emotional upsets. Half of the cases complained of cold, clammy hands and feet, and constipation.

TREATMENT—The most important feature of psychic treatment is taken when a complete and careful examination is made of the patient. If this does not reveal signs of organic disease, some patients lose interest in their symptoms and are restored to a normal status of nervous function. Amongst the cases of gastric neurosis in this series were some who had a definite cancer and ulcer phobia. When the news was conveyed to them that their examinations were negative, they immediately lost interest in their condition, and when questioned several months to a year later replied that they were feeling well. It is also essential in the taking of the history to delve with tact and diplomacy into the psychical or emotional life of the patient. In this way the history may reveal all the details of family or business worries, of domestic infelicity, of overwork, or of the phobias that are so often at the root of the trouble.

By uncovering the provocative emotional factor and with explanation to the patient that this was the mechanism responsible for their symptoms, it is very possible to effect proper adjustment of the situation by advice and sympathy. ¹¹Meakins states that the patient must be convinced that he or she holds the key to a complete cure.

¹²Alvarez has advocated the smooth diet which is being found useful in this condition both from the standpoint of the stomach and of the bowel. For underweight increased amounts of cream and butter may be added to the diet. Constipation may be regulated by increasing the intake of water, exercise, abdominal massage where indicated, mineral oil, and enemas of normal saline when necessary.

The treatment of gastric symptoms which are characteristic of vagal hyperirritability (pain, discomfort, pyrosis, belching,) require reassurance, and the administration of sedative and antispasmodic drugs, in addition to the diet.

SUMMARY AND CONCLUSIONS

1. One hundred cases of dyspepsia are reviewed.
2. Fourteen per cent of these cases were found to have organic lesions of the oesophagus, stomach or duodenum.
3. Gall bladder disease was the most frequent organic cause of gastric symptoms occurring in seventeen cases.
4. Functional indigestion formed the largest class of cases, namely thirty per cent.
5. The largest individual group of patients ranged between the ages of twenty and thirty—thirty cases.
6. Men formed a majority of the cases—fifty-nine men, and forty-one women.
7. The salient features of gastro-intestinal physiology and its relationship to various gastric disorders are discussed briefly.

8. A brief presentation was made of functional indigestion in view its of frequency.
9. Functional indigestion is discussed under the following three headings into which these cases fitted: (1) habit dyspepsia; (2) gastric neurosis; (3) ulcer-simulating type of psychoneurotic origin.
10. The psychic background is stressed in these cases of gastric neurosis because that undoubtedly is responsible for the origin of the majority of cases of visceral dysfunction.
11. The treatment of gastric neurosis is discussed.

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Having arrived at the manor house, we rang the bell and the door was opened by an Esthonian maid. At her sides stood two fierce-looking bulldogs which barked furiously at the sight of us. With the aid of gestures we tried to explain to the servant that Madame Laidoner was expecting us, while she in turn tried to convey to us that the dogs were harmless. We entered a beautiful reception room, followed by the barking dogs, but since they were wagging their tails, both Mrs. Carlson and I thought it safe to sit down.

Presently Madame Laidoner, our charming hostess, appeared. She greeted us with a smile and said, "I hope you do not mind the dogs, but they are pure bred and not cocktail dogs!"

"Cocktail dogs?" I inquired, puzzled.

"Yes," said Madame Laidoner, "they have not been mixed. Don't you use that expression in America?"—Baroness Irina Ungern-Sternberg in *National Geographic Magazine*, Washington, D.C.

DOCTOR WANTED

An assistant doctor, who is steady and a willing worker, is wanted in a country practice; this year's or last year's graduate preferred. For further particulars apply to the Secretary.

Medical Aspects of Concentration Camps*

The Government White Paper¹ and newspaper summaries of it have given the world some idea of the conditions of life in the concentration camps for political prisoners in Germany before the war. To find parallels to these conditions it is necessary to go back to exceptional periods of unrest among Oriental or savage peoples. The documents in the White Paper are closely corroborated by much other independent testimony, and an interesting sidelight from the medical point of view is contributed to the *Catholic Medical Guardian* for October by a German doctor who was confined in the camp at Dachau.

The beginning of the imprisonment for many victims was, he says, a long journey in a train, into the compartments of which they were driven by the boots and rifle-butts of their S. S. guards. Twenty were crowded into a space made for ten and the doors and windows closed. On arrival at the camp they ran the gauntlet of two lines of guards armed with bayonets and clubs. They were then kept standing at attention on the parade ground for hours with no food or water or opportunity to attend to the calls of nature. Some had their ears permanently damaged, and some had blood-suffused eyes from beating on the head. Thereafter they were forced to work at the severest manual labour day after day, and the chief object of their guards seemed to be to inflict as much torment as possible. The drinking of water was forbidden throughout the day; the loads were calculated to be beyond the strength of the workers; the guards kept up a rain of kicks and blows. Prisoners who broke down were sent to the punishment squad. Heads were bare in high summer; clothes were continually wet in winter.

DIET AND PUNISHMENT

The diet supplied on the average between 1,200 and 1,500 calories a day. The usual morning allowance was a quarter of a litre of black unsweetened acorn coffee, with no nourishment value. The prisoner took to work such bread as he might have saved from the day before. His evening meal was usually soup, containing 300 grammes of potatoes, cabbage, or beans, with 50 grammes of black bread. Occasionally the issue was supplemented by 50 grammes of black pudding, or by a little jam, cheese, or syrup. Fat was almost completely absent; pulse of various kinds was common. Sanitation was relatively satisfactory in Dachau, but in Buchenwald it was abominable. Though dysentery and enteritis were common, the latrines could only be used at certain hours of the day. Clothing and shelter were miserably insufficient.

In addition to the individual brutality of the guards, formal punishments included flogging, suspension from trees, and solitary confinement in darkness. Flogging was standardized at twenty-five lashes with a steel rod or ex-penis on the buttocks, after which the prisoner must stand at attention facing a wall for twelve hours without eating or drinking. Huge haematomata developed around the wounds, and fever, whether of resorption or suppuration, followed. For tree-hanging the prisoner had his hands tied behind his back. At first the pain was agonizing, owing to the strain upon the brachial plexus and the

An article appearing in the British Medical Journal Issue of November 25, 1939, 1054.

1 Cmd. 6120. London: H. M. Stationery Office. (3d.)

cutting of the chains into the skin; the body gradually stretched owing to the elasticity of the intervertebral disks, and the sensation was that of being torn asunder by the legs. The acutely painful phase was followed by parasthesia and then by a sensation of paralysis; the muscles then became lifeless and the backs of the hands oedematous. The suspension usually lasted an hour and a half, and for days afterwards the hands and feet were stiff and unfeeling.

PSYCHOLOGICAL FEATURES

On the psychological side, says this writer, neurosis is endemic, and takes the form of anxiety, ruthless egotism, or despair. The ordinary prison neuroses are rare, as the captives are mostly innocent of crime. Queerly enough, physical neuroses, especially of the gastro-intestinal tract, improved in spite of extremely indigestible food. The author therefore thinks it a safe generalization that the best cure for this class of nervous disorders is "authoritative and imperative suggestion therapy." The psychological injury, which does not express itself in physical symptoms must, however, be incalculable. The author makes some reflections on the possible effect which their occupation may have on the minds of the youths who are specially selected and taught the technique of cruelty to defenceless men which is a necessary qualification for the S. S. guard. It is a melancholy thought that 7,000 young men are posted to Buchenwald at a time and that any tendencies to sadism they may have are given full opportunity for development. Parties of Hitler Youth are taken through the camps, and one of the functions of these institutions seems to be to brutalize the German youth of military age. The student of morbid psychology would find an ocean of material in unexpurgated accounts of these camps which for reasons of decency cannot be published. The colossal work of undoing the spiritual harm that is being wrought among victims and guards alike baffles the imagination.

MEDICAL TREATMENT

Generally speaking, this writer found medical treatment perfunctory. At the worst the sick were driven to work and left to die where they dropped. Occasionally obvious complaints, like a "struma" or hydrocele, were treated and the patient allowed lighter work. Duodenal ulcers, weak hearts, active tuberculosis, and diabetes were disregarded. Patients in hospital were left entirely to the mercy of the orderlies or of fellow prisoners doing supervision duty. A certain amount was done on the surgical side: palmar phlegmons were cut out, and compound fractures of the hands and feet caused by accident or violence were treated by amputation. A civilian dentist gave some treatment at Dachau, but in Buchenwald not even extractions were performed; periosteal abscess and caries were extremely common. Innumerable dirt diseases, such as impetigo, furunculosis, erysipelas, eczema, and infective fungoid diseases, were rife, and, owing to the lack of vitamins and rest, wounds healed with difficulty. The sick, even those unable to walk, were dragged to roll-call twice a day by their friends. A common complaint was oedema of the backs of the hands and ankles. In Dachau large numbers suffered from tenosynovitis. In Buchenwald hundreds of prisoners caught an acute itching dermatitis of the edge of the pinna, due either to a fungus silica dust, or allergy produced by the nettle-fibre blankets. It yielded to painting with a zinc solution. There was, of course, a wide variety of disease not attributable to the camp conditions, but a very large number of acute cases were fatal—perforated appendix, ileus, cancer, and pneumonia. In the opinion of the author, 80 per cent of the deaths could have been prevented by proper medical attention.

MORAL FORTITUDE

A few items are recorded on the positive side. Some prisoners were able, by submission to the discipline and by developing the habit of enduring privation, to school and strengthen their characters. The White Paper mentions the Bibelforscher, members of a religious sect who were almost as badly treated as the Jews, but whose courage and religious faith were remarkable, and who professed themselves ready to suffer to the utmost what they felt God had ordained for them.

Hunger and work appeared to agree fairly well with some of the diabetics, who although they received no insulin showed no sign of coma. Some of them had lost as much as 80 pounds and still felt fairly well. Almost all sufferers from psoriasis were strikingly benefited. Colds were rare. All prisoners dreaded the camp hospital with its appalling death rate, and the will not to be ill must have strengthened their weakened organisms.

The question that remains in the mind after reading these terrible reports is why those in power should find it necessary to expend so much trouble and ingenuity in heaping gratuitous torment on thousands of helpless people.

When lunch was announced, it became necessary to return Kate, our three-year-old orang-outang, to her spacious, airy run, which encircles a tree in which she plays. Her banishment from human society was imperative, because she begs for titbits from the table like a spoiled child, screaming in tantrums when denied. And denied she has to be, for her constitution is delicate, and she is so valuable that she must not be allowed to deviate from a rigid and scientifically-prepared diet. In her play-pen she is also guarded against possible attacks by the untrustworthy rhesus, who, so far, has regarded her with indifference.

Kate, however, had no desire to go back to her enclosure. She flung herself on the ground, an impassioned dead weight, her hands covering her eyes while she shrieked with temper. Michael lifted her up and dumped her gently into her pen, where she lay on her face, yelling and kicking her legs. We silently withdrew to a short distance and watched. Presently Kate stopped crying, cautiously withdrew one hand, and peered around it to see if she still had an audience. She had—and Kate adores audiences! Down she went on her face again, pressed her fingers in her eyes, and wailed "Ai, ai, ai!" Hardening our hearts, we left her, whereupon the shrieks of self-pity immediately stopped!—Constance M. Locke in *The Wide World Magazine*, London.

The following is the authentic record of a conversation overheard in an A.R.P. depot where patriotic ladies volunteer to be on duty for a certain number of hours each day, in case of an air raid.

First lady: "I don't know what I shall do when this rationing business comes into force. I eat such a lot of butter, and I can't do without it."

Second lady: "Yes it's too dreadful, isn't it? The poor people are so much better off than we are, because, of course, they are used to margarine. My charwoman has a large family and I am sure she always eats margarine and won't want all her butter coupons. I hope I shall be able to get her to give her butter coupons to me. She won't mind."

First lady: "How lucky you are. Of course, that sort of person doesn't use butter at all."—Critic in *New Statesman and Nation*, London.

Reflex Asthma Relieved by Surgery

R. B. EATON, M.D., F.R.C.S. (Ed.)
Amherst, N. S.

THE causes of asthma may be summarized as follows: (1) An allergen (bacterial, non-bacterial, bacterial plus secondary non-bacterial, non-bacterial plus infection or toxæmia). (2) Nasal. (3) Bronchopulmonary. (4) Alimentary. (5) Endocrine. (6) Psychological.

This case was referred to me with acute intestinal obstruction and his asthma was only incidental; however, due to the dramatic cure of the latter condition, I feel it worthy of report.

CASE REPORT (BRIEFLY)

He was a thin, frail man; age 71; weight 125 lbs., and looked very ill. Admitted to hospital with 8 days' history of intestinal obstruction. He had been subject to asthma for the past forty years, never having a free interval without taking one of his varied medical remedies. Superimposed on his asthma was a chronic bronchitis.

At operation, under spinal anaesthetic, he was found to have an inoperable carcinoma of the pelvi-rectal junction. A left inguinal colostomy was therefore performed. For three days his progress was rather hectic; continuous intravenous 5% glucose and saline was administered to combat dehydration and toxæmia. Simultaneously his bronchial asthma flared up. This however gradually improved with his general condition and three weeks later he was feeling quite fine and free from his asthma. Six months later he had no recurrence of his asthmatic attacks.

DISCUSSION

It is difficult to suggest any reason for the disappearance of this man's asthma. He had it for at least forty years and was only free from it for a day or two at a time, and used the disease as an excuse for not doing any hard work all these years. Could it be that the asthma was purely psychological in origin—a defence mechanism used to avoid the necessity of labour. Now that he had a serious operation with a resultant colostomy, there is no longer any need to keep up the asthmatic attacks.

His medication during convalescence consisted of Elix. Dig. Co., Easton's Syr., and Ferrous Sulphate, and it is quite improbable to suppose that the spinal anaesthetic had any curative effect on his asthmatic condition. An alternative explanation is that his asthma was associated with intestinal stasis, now alleviated by a well-working colostomy; however, his bowel symptoms only dated back three months.

EDITOR'S COLUMN

DO CIGARETTES HARM US?

The action of tobacco on the human body has been studied from many angles—the heart, the eye, the gastro-intestinal tract and so on. As there is no claim to original thought in this short epistle, I shall now acknowledge all the published research and get down to business.

Most of us are asked, perhaps not so often today; "Doctor, do cigarettes harm you?" To be exact, the question usually is: "Doctor, do you think the children should smoke?" And this by the modern woman who consumes her twenty-a-day and inhales every one of them. The question, at first sight, is not so simple, but let us examine the facts. Since we are more concerned with the health of our children and perhaps, through gallantry, we guard especially that of our daughters, let us consider in particular the effect of smoking on young growing girls. Let us think about the young flapper, just returned from finishing school—although not completely finished. She lights a cigarette (no special brand) *and what may happen?* If the young lady in question is not a chronic, and again if she does not use a four-inch holder to ape the sophisticated, she will get a mild conjunctivitis. Most doctors and all eye specialists will agree to this. And since we are speaking of the eye, what may happen if the young lady in question slowly works up to twenty or thirty a day? Without doubt she may develop toxic amblyopia. Cigarette smoke causes an irritation of the mouth, the pharynx, larynx, the bronchi, and to a lesser extent the bronchioles. In symptoms, this irritation manifests itself by the burning tongue, the dirty taste in the morning and by chronic cough, which is relieved by discontinuing the smoking. One of the difficulties in cutting out cigarettes is this irritation of the respiratory mucus membrane. It creates a condition of what one could call "temporary cigarette hunger," only to be satisfied by another cigarette (some of the advertisements do not agree with this). The gastro-intestinal tract is also affected. What we call the condition makes little difference. Most of us are agreed that excessive cigarette smoking causes loss of appetite and loss of weight.

And what are the systemic or general effects the lady in question subjects herself to if she continues smoking? First, symptoms of heart trouble. It is well established that excessive cigarette smoking causes severe precordial, the so-called "cigarette angina." This is not to be confused with coronary thrombosis, although it is a painful and terrifying condition. And what about the nerves? Just as the pipe or a good cigar soothes us, so do cigarettes make us nervous and irritable. And finally cigarettes, like the use of all forms of tobacco over a long period of years, tend to shorten our life.

Is there anything good can be said of the cigarette? Has it really any place in society? Since most people smoke we must acknowledge it allows one to be friendly or sociable just as the taking of a glass of whisky or wine does, but the ability to smoke a cigarette is not the highest qualification for entrance into intelligent society.

Our answer then to the inquiring parents should be: "The cigarette does no good and may do considerable harm."

Supplementing the article published last month entitled, "Britain Fortifies Its Food," the following excerpt taken from the *Clinical Journal*, January, 1941, is reprinted:

THE SUPERIORITY OF WHOLEMEAL BREAD

All recent discussion confirms the view that white bread is a defective article of diet, though ill-effects may be absent in those on a liberal diet who do not make bread "the staff of life." The Ministry of Food proposes to make good what is supposed to be the principal deficiency in white bread by adding vitamin B¹. But, as Dr. Harriette Chick (*Lancet*, 1940, ii, 511) points out, this is not the only deficiency; white flour is also deficient in B² vitamins, minerals and protein. The vitamin B² complex includes riboflavin, nicotinic acid and vitamin B⁶. Dr. Chick divided a litter of rats soon after weaning into two groups. She fed one group on white flour with correction of the defects in vitamin B¹ protein and minerals. She fed the other group on whole meal flour. During the first fortnight the average weekly gain on the white-flour diet was 11.8 gm.; on the whole meal, 22.8 gm. On interchanging the diets of the groups a similar result was obtained. The inferiority of the white flour diet must be attributed to deficiency of B² vitamins.

MACLEAN'S MEDICAL SECTION

You will be surprised that I should offer a few notes on Maclean's, Canada's National Magazine. But in thinking about it—is there anything strange in the medical profession being well acquainted with the popular magazines? Victor Heiser writes for *Colliers* so that he can get his stuff over to the American public. He is wise in doing this, for if he wrote for the medical journal it would take months or years before the information got through to the lay public. So this article is to bring to our readers certain information which I obtained from the January 15th copy of Maclean's.

As the articles are short I am showing copies below.

"HOUNDED" BY HEADACHES

Blinding pain, constant throbbing made her life a misery. It seemed as though she would never get lasting relief until a friend said: "Faulty kidneys may be the cause, use Dodd's Kidney Pills". If kidneys fail, poisons remain in the system and headaches, backache, rheumatic pains and other ailments often follow. Treat headaches by helping restore your kidneys to normal action. Use Dodd's Kidney Pills, a favourite remedy for over half a century.

DODD'S KIDNEY PILLS

MIDDLE-AGE WOMEN 38-52 yrs. old

HEED THIS ADVICE! Are you getting moody, cranky and NERVOUS? Do you fear hot flashes, weakening dizzy spells? THEN LISTEN:

These symptoms often result from female functional disorders. So start *today* and take Lydia E. Pinkham's Vegetable Compound. For over 60 years Pinkham's Compound has helped thousands of grateful women during difficult days. Pinkham's has helped calm unstrung nerves and lessen distress due to annoying female functional "irregularities."

Made in Canada. WORTH TRYING! Any drugstore.

STUFFY NOSTRILS

Mentholatum quickly relieves the worst head cold . . . clears head and nose . . . relieves sniffing, stuffy nostrils. Jars and tubes, 30c.

Mentholatum Gives Comfort Daily

Article No. 1 gives some startling advice on the treatment of headaches. It says: "Treat headaches by helping restore your kidneys to normal action. Use Dodd's Kidney Pills." I wonder if the editor or manager treat their headaches with Dodd's Kidney Pills, and if they obtained the excellent result vouched for.

No. 2 deals with middle-aged women (38-52) and advocates the use of Lydia E. Pinkham's Vegetable Compound for "female functional disorders" and unstrung nerves.

No. 3 states "Mentholatum relieves the worst head cold," and so on. There is no misrepresentation here, but there is no doubt that many would be misled and expect a cure. Again I wonder if the editor or manager of Maclean's ever had a "head cold" and if so, whether he received "daily comfort" from Mentholatum.

Now, Mr. Editor, neither the editor nor the manager of Maclean's is a middle-aged woman (38-52) so how can they vouch for the efficacy of Lydia E. Pinkham's remedy? It makes me wonder, as I always had great faith in Maclean's. Perhaps you might drop them a line to see who is responsible for their medical section.

A COUNTRY DOCTOR.

The crew of a German submarine had been rescued by a British destroyer, and the men taken on board were being held as prisoners of war. One day, one of the German officers approached the captain on the bridge and began to express his opinion regarding His Majesty's Navy:

"Your battleships? Your cannon? Your sailors? Your admirals? They're not even worth talking about!" and saying this, he disdainfully spat into the ocean.

Without losing his temper, the captain replied: "Think what you like about our admirals, our sailors, our cannon and our battleships; but, if you don't mind, don't spit in *our* sea."—*Excelsior*, Paris.

It is a common assumption that the peace failed because Germany suffered under grievances which she was not allowed to redress by war, and that our next peace will succeed if we treat her justly and give her no ground for grievance.

Such a view indicates a failure to understand the nature of our problem, for it assumes that wars arise because nations have specific grievances, such as those we had with France at the end of the nineteenth century, about Madagascar, Fashoda, Newfoundland, etc.

On the eve of the Great War, the late Sir Edward Grey, as he then was, said, "I can settle with France because we have differences which we can discuss and adjust. I cannot settle with Germany because we have no differences with her at all."—Norman Angell in "*For What Do We Fight?*" (Harper).

"THE CURRENT FLU"

With its accompanying high temperature
and aversion to food depletes the body of essential factors

B- PLEX hastens restoration (SMACO)

EACH CC. CONTAINS:

Thiamine Hydrochloride	125 gamma
Riboflavin	100 gamma
Nicotinic Acid	625 gamma
Vitamin B6	50 gamma
Pantothenic Acid	130 gamma

Also rich in the B2 Complex Residue



Suggested dose—2 to 6 Teaspoonfuls daily

Supplied in 240 cc. bottles on your prescription

S. M. A.—Biochemical Division

John Wyeth & Brother (Canada) Limited

WALKERVILLE — ONTARIO

PERSONAL INTEREST NOTES

ON January 16th, following an appeal made by Dr. Carleton Stanley, the President of Dalhousie University, the Finance and Executive Committee of the City of Halifax voted to increase the annual grant to the Dalhousie Public Health Clinic from \$5,000 to \$10,000. President Stanley in addressing the meeting stated that the deficit of the Dalhousie Public Health Clinic was more than \$178,000.

Dr. M. R. Young, of Pictou, who has been in Montreal for medical treatment, has returned home and we are glad to know that his condition has improved. During his absence his practice was attended to by his son, Captain Fraser Young, R.C.A.M.C., who was home on leave.

Dr. Frank Morse, of the Montreal General Hospital, Montreal, recently spent three weeks' vacation with his parents, Dr. and Mrs. L. R. Morse of Lawrencetown.

Dr. and Mrs. M. D. Brennan have returned from Central Canada to Dartmouth. Dr. Brennan took post-graduate work in surgery and fractures in Chicago this winter and Mrs. Brennan visited her parents.

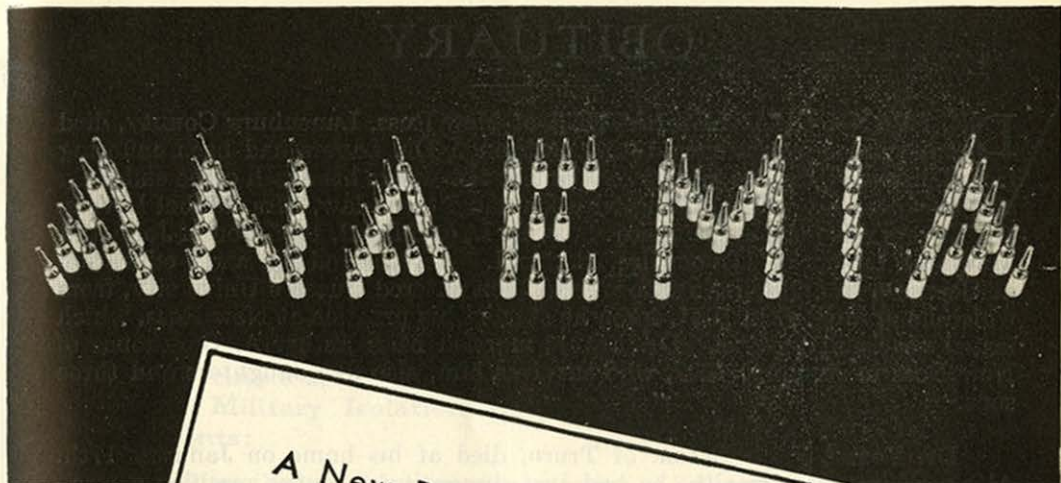
Favourable comments were heard in Dartmouth recently following the suggestions of Rev. L. Weldon Mosher, Rector of St. Alban's, at a meeting of the Dartmouth Ministerial Association's Co-operative Study Group. Mr. Mosher presented an interesting and detailed paper on "Co-operative Medicine and Hospitalization" and emphasized the desire for a co-operative effort to bring about much-needed improvements in social and economic conditions.

With the departure of Dr. C. H. L. Baker, who has reported for military duty in Halifax, the Musquodoboit Valley is without a medical practitioner. The nearest doctors are at Musquodoboit Harbour, Shubenacadie and Upper Stewiacke, all of whom find it almost impossible to leave their own patients. So far as is known, no doctor is in view for this practice, which extends from Lower Meagher's Grant, through the Musquodoboits to Dean, a distance of about thirty miles, and includes Moose River, Caribou Mines and other outlying districts.

Dr. Clarence L. Gosse, of Halifax, who graduated from Dalhousie in 1939, has been awarded a Fellowship in major surgery at the Crile Clinic of Cleveland, beginning in July, 1941. He is at present completing a two years' residency in surgery at St. Luke's Hospital, Cleveland, Ohio.

Dr. David L. MacIntosh, son of Rev. M. H. and Mrs. MacIntosh, of Waverley and formerly of Bedford, has joined the Royal Navy as Surgeon-Lieutenant, and is leaving for overseas shortly. Dr. MacIntosh, who graduated in 1939, has been attached to the Toronto General Hospital.

THE BULLETIN extends congratulations to Captain (Dr.) and Mrs. J. A. Muir on the birth of a son on February 2nd.



A New Preparation of Parenteral Liver
Ayerst Liver Extract (No. 499)

Designed to meet the requirements of physicians who prefer a less highly purified liver extract containing, in addition to a high concentration of the anti-pernicious anæmia principle, certain other valuable elements such as the Vitamin B complex, which may be eliminated in the preparation of the more highly purified products. Each c.c. of Ayerst Liver Extract (No. 499) contains not less than 10 U.S.P. Injectable Units and exhibits the hæmatopoietic properties, or refined G fraction, of approximately 100 Gm. of fresh liver. Each batch is standardized by carefully controlled clinical tests on patients suffering from pernicious anæmia.

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OBITUARY

DR. FRANK CHARLES LAVERS of New Ross, Lunenburg County, died at his home on January 16th. Although Dr. Lavers had been suffering from illness of a serious nature for the last few weeks his death came suddenly and unexpectedly while talking with his daughter-in-law, Mrs. Mabel Lavers. Dr. Lavers was born in Georgetown, P. E. I., on May 2, 1865, son of John and Margaret Lavers of Devonshire, England. He received his early education at Georgetown and Charlottetown and then entered Queen's University, from which he graduated in 1891, when he started his practice at New Ross, which lasted nearly fifty years. Dr. Lavers married Miss Esther A. Barkhouse of New Ross in January, 1897, who survives him, also five daughters and three sons.

Dr. Foster Fitch Eaton, of Truro, died at his home on January 17th. Although in failing health, he had just discontinued active practice a week before his death, which came suddenly. Dr. Eaton was born at Lower Canard, the son of David Rupert and Johanna Fitch Eaton. He graduated from Acadia University in 1886 and received his medical degree from the University of New York in 1889. He also pursued post-graduate work in London, England, and in New York. For eleven years he was located in Riverport, N. S., and in 1899 moved to Truro, where he continued his practice. Last May, on completion of fifty years of medical practice, he was honoured by the Colchester-East Hants Medical Society, of which he was an active member. For the past several years he had served the town in the capacity of medical health officer. Surviving besides his wife are one daughter and five sons.

THE BULLETIN extends sympathy to Dr. A. C. Fales of Wolfville on the death of his wife, the former Miss Mary Alice Curry, which occurred on January 23rd.

"I heard a story," he said, "about a coin. Some men were playing cards. One of them lost everything, and borrowed a silver dollar for his fare home and his breakfast. On the way he was accosted by an unhappy girl in the last stages of despair. He was a good-hearted man, and was touched by her story. In short, he gave her the silver dollar and told her to go in peace. Next morning she was found drowned; a bad dollar clutched in her hand.

That bad dollar, you understand, had been the last straw. If it had been a good one, she would have lived on until the dawn . . . and it is God's mercy, my friend, that the daylight always brings new strength. It is the depression of the small hours that kills men, my friend; the horrible seconds when you hear the clock strike Three: then you are lost. You see: the man of whom I told you; he was a good man, but Providence had used him for a tragic purpose."—Gerald Kersh in *Courier*, London.

THE CHEMOTHERAPY OF MENINGOCOCCAL MENINGITIS

In reporting a series of 124 cases of cerebrospinal fever treated at the Military Isolation Hospital, Aldershot, the author* comments:

"After the initial intravenous injection of Soluseptazine, with lumbar puncture, within twenty-four, or even twelve hours in the majority of cases, the picture was entirely changed. The temperature fell to normal, the intensity of the headache was diminished and in some cases entirely eliminated, nuchal rigidity lessened and vomiting ceased or lessened in persistence and severity..."

"The results are so constantly good and the effects so speedy that this is the drug to be recommended for routine treatment at the outset in all cases except perhaps the mildest. It is certainly preferable to any other form of chemotherapeutic drug that has been produced up to the present time..."

*Cushing, R. W., M.B., B.Ch., Lieut.-Colonel, R.A.M.C. *Cerebrospinal Fever. Analysis of 124 cases. Brit. Med. Jour., Oct. 5th, 1940, p. 439.*

Hannah, R. H., and Hobson, F. G. *Meningococcal Meningitis, treated with Proseptazine and Soluseptazine. The Lancet, Oct. 22nd, 1938, p. 937.*

Cook, A. B., Medical Officer, C.M.S.-Hospital, Wusasa, Nigeria. *Chemotherapy of Cerebrospinal Fever. Brit. Med. Jour., June 3rd, 1939, p. 1154.*

SOLUSEPTAZINE

(M. & B. 137) is presentdd in Canada in ampoules of 5 c.c. and 10 c.c. of a 6% solution; boxes of 5, 50 and 100 ampoules of each size. It may be administered by intramuscular, intravenous or even by intrathecal injection.

Laboratory Poulenc Frères
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Thirty-one-year-old Clifford Clinton found on South Olive Street, Los Angeles, the restaurant he wished to purchase. He didn't have enough actual cash to pay the first month's rent, but the owners signed him up to a long-term contract and breathed a sigh of relief. The place had been losing \$6,000 a month.

Clinton, however, was not quite as naive as he may have looked. He knew the place was a white elephant. He still believed he could turn it into a money-maker. He called it "Clinton's—The Cafeteria of the Golden Rule." He decorated it with palm trees, brought in cages of singing birds, constructed a rock fountain whose blue-lighted waters fed a "wishing well" into which customers could throw coins that, duplicated by Clinton, would go toward feeding the poor of the city.

He opened a "guests' exchange" which listed services or commodities for his patrons' mutual benefit.

He abolished tipping, paid his help well, called them his "boys and girls" and his "associates".

He installed a free lending library, a free advisory service for the troubled; furnished lollipops, bibs and high chairs for youngsters; taught his customers how to budget their food expenses, extended those short of funds a meal-credit plan; offered free bridge talks and free meeting rooms for clubs, hired cheerful "associates" to visit—and help, if possible—the sick, and on each table placed a free pamphlet called Food 4 Thot. On the back of each meal check he printed this offer:

"Regardless of the amount of this check, our cashier will cheerfully accept whatever you wish to pay—or you may dine free."

In one ninety-day period ten thousand patrons walked out of his place without paying their checks.

One of his earliest customers was a friendly judge, who said to him, "Mr. Clinton, I'll make you a wager that within a year I'll see you in my court."

Clinton was puzzled. "What court are you in, sir?"

The judge smiled. "Bankruptcy," he said gently.

For the first six months it seemed a sure thing. Clinton's competitors tried to price-cut him out of existence. Working feverishly, with his wife Nelda beside him, he outlasted them. He bought a second restaurant to handle the overflow, and now serves an average of 16,000 meals a day. The bankruptcy-court judge still eats there.—Dwight F. McKinney and Fred Allhoff in *Liberty*, Toronto.

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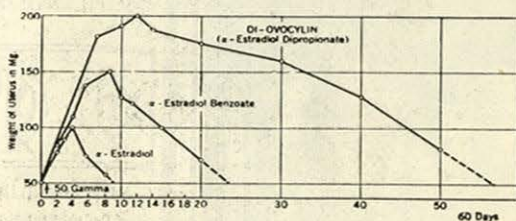
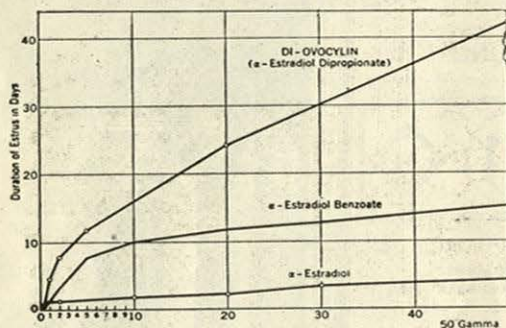
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(Clinical references: *Am. J. of Obst. & Gyn.*, Sept. 1939, *Endocrin.*, Vol. 24, No. 4, April, 1939 and Vol. 27, No. 1, July, 1940, etc.)

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(C.M.A. Journal, 43, Page 456)

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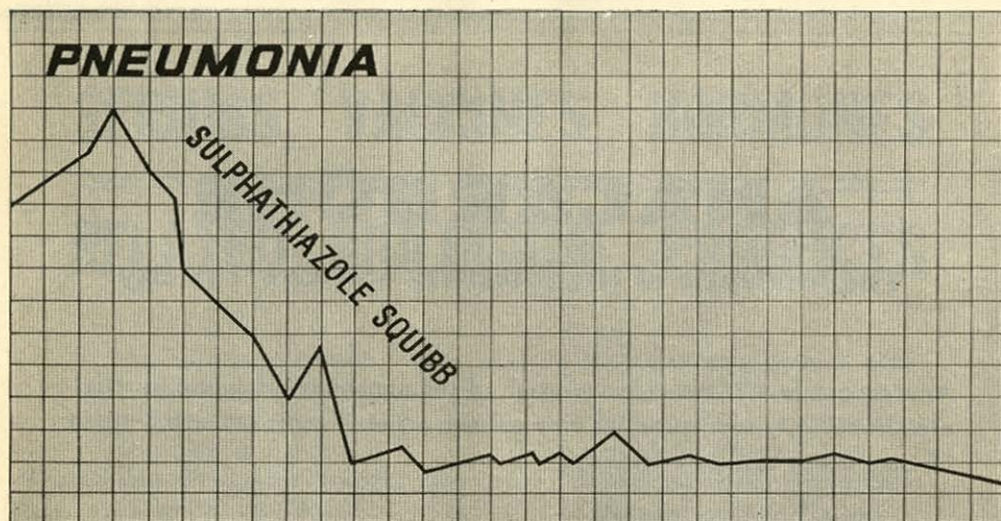
Anacardone is available in ampoules of 2 c.c. and 5 c.c., and in bottles of 15 c.c. and 100 c.c., flavoured, for oral administration.

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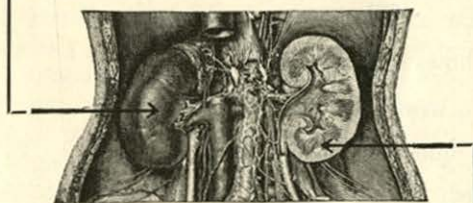
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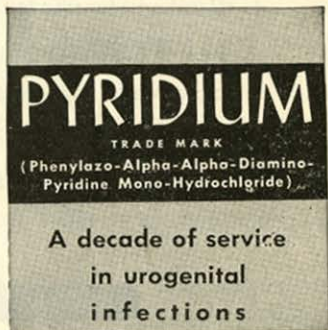


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