

# Diabetes in Childhood

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**D**IABETES is a group of catabolic destructive processes converted by insulin to constructive anabolic reactions with the utilization of sugar. It is a condition in which the homeostatic adjustment of glucose levels in the body is defective, in which the available supply of glucose in the body is above normal, or in which a balance between utilization and availability is not maintained.

The process of control is a complex relationship of several antagonistic factors that control glucose levels. Antagonism of action of the various hormones of the anterior pituitary, adrenal medulla, adrenal cortex, thyroid and two from the pancreas, one affecting the level upwards while another affects it downwards, produces the constancy of concentration of glucose. These hormones, by balance and counter balance, maintain normal glucose levels. The fact that two hormones are antagonistic in the control of certain specific chemical reactions is a concept of great importance. It must also be recognized now that there is a close correlation between carbohydrates and protein and fat in the production of energy.

A juvenile diabetic is one whose diabetes began when he was less than 15 years of age. Since the insulin era is now 32 years old, a number of juvenile patients have attained the age of 45 or 50 with or without degenerative vascular disease. Before 1922, life expectancy was 2 years; now he should live out the normal span.

The characteristics of juvenile diabetes are:

1. Its severity and rapid onset of ketosis.
2. Its unfavorable effect on growth and the marked weight loss.
3. Its tendency to predispose to
  - (a) sepsis.
  - (b) nerve tissue damage.
  - (c) degenerative vascular disease.  
and its complications.

Incidence:

Children make up 5%—8% of the total cases, with females predominating. The peak ages are 3—6—12 years and the peak year for all is 12, or 11 for girls and 13 for boys.

Causes:

1. Heredity is a factor in forty per cent. Diabetes is transmitted as a recessive character and the family history is never complete until all members are dead.

The theoretical results of union are as follows:

Two known diabetics—all children are diabetic.

One diabetic plus one carrier—one-half the children.

One carrier plus one carrier—one-quarter the children.

One diabetic plus one non diabetic—none of the children.

2. Diet;

Excess sugar and fat—obesity—5%

3. Endocrine—Important.

Pituitary, Thyroid, Liver, Adrenal, Pancreas, are all concerned with CHO metabolism and diabetes. Endocrine imbalance renders the liver incapable of performing its blood sugar regulating activities with uncontrolled conversion of protein and fat to carbohydrates with ketosis.

4. Infection—10%—Important.

Diabetes is latent and infection only acts as the trigger to activate it.

#### Symptoms:

The onset is more rapid and the child is underweight rather than fat—so rapid that the usual symptoms of wasting, thirst and appetite may not be noticed. Polyuria may be associated with bed wetting. Skin infections are common. Visual disturbances, changes in disposition, and failure at school are often observed. Infection and coma may be the initial manifestation, with excitement instead of drowsiness.

#### Diagnosis:

The discovery of diabetes depends on the physician's awareness that it may be present. The diagnosis is always disturbing to the parents, and the child, if he is old enough to understand.

Early diagnosis is very important to prevent complications. It should be made before the stage of polyuria and loss of weight.

Blood sugar must be done to be sure. One test at 2 hours after a loaded meal—with 100 grams of CHO—is usually sufficient. A finding of 130 to 150 mg. % is suspicious, above 150 definite, particularly if it does not return to normal after two hours. If this hyperglycaemia is associated with glycosuria, the diagnosis is confirmed. Continued mild glycosuria means potential diabetes. The oral glucose tolerance test—1.8 gms/Kg.—is only necessary for doubtful borderline cases, or to find a high or low renal threshold.

#### Differential Diagnosis:

Glycosuria may be found with—

- (a) Emotional disturbances.
- (b) Cerebral injuries.
- (c) Overeating.
- (d) Infection with uraemia.
- (e) Congenital anomalies such as pentosuria and galactosuria.
- (f) Hyperpituitarism, hyperthyroidism, adrenal tumours.
- (g) Cortisone treatment.

There are five situations where diagnosis may be a problem:

1. Moderately severe with varying glycosuria.
2. Elevated renal threshold and no glycosuria—rare.
3. Milder cases with minimal glycosuria.
4. Glycosuria first, as a complication of another disease.
5. Low renal threshold with glycosuria.



One and two may go on for 20 years and then suddenly vascular changes appear, e.g. cataract, retinopathy and nephropathy. For some time before, he may have been complaining of asthenia, neuritis, disturbance of vision, impaired memory or mental acuity. Amenorrhoea, sterility, abortion and impotence and the birth of large, overweight babies are additional signs which may result from the diabetic state.

#### Management:

The most debated question in the management of juvenile diabetes is the degree of control necessary for the best results.

There are three schools:

1. Chemical control with no glycosuria.
2. Control with daily glycosuria and no acidosis and measured diets.
3. Control with glycosuria, freedom from symptoms and no acidosis and so called free diets.

The outstanding paradox is the lack of any relation between severity and control by treatment and the degenerative changes. Successful control, however, always depends on the joint efforts of physician, patient, and parents. The child's diabetic life is more than ever in the hands of his parent who is cook, dietitian and guardian. With average intelligence, there are no obstacles to success, and the dietitian is not needed so often with the use of the standard diet tables.

Management revolves around four main subjects: 1. Diet. 2. Insulin. 3. Exercise. 4. Education. Compared with the adult, the important variable is the exercise.

#### 1. Diet:

Normal growth and development are the targets for the care of the diabetic child. We are not concerned with the growth factor in adult diabetes. Marked retardations should never be seen with the use of adequate diet and good chemical control. The advocates of free diets who countenance more glycosuria claim that no degenerative changes have appeared in those children who have been well controlled. It is not an easy task by either method for all concerned, but the goal of delaying or preventing the vascular complications must be our aim.

The diabetic child needs an adequate normal diet with an ample supply of vitamins and minerals. The diet should not differ appreciably from the normal diet of children of similar age. It must be liberal enough to prevent under nutrition, and allow growth to proceed normally until adolescence. Each meal should be an elegant satisfaction of appetite and not a problem in arithmetic.

There are educational advantages in a measured, calculated diet. It gives parents and children a knowledge of food values. It will also prepare the child to make intelligent choices when it is not possible to have planned meals. It will give him confidence to take care of himself away from home. For this reason a variety of foods is encouraged.

The caloric content is determined from normal standards of height, weight, and age. The height standard allows 35 cal/in. The weight standard provides 50 cal/lb. at 1 year, 35 cal/lb at 5 years, 30 cal/lb at 10 years and



25 cal/lb at 15 years. The age standard furnishes 1000 cal. at one year and 100 cal. for each year thereafter. Combining weight and age it is not difficult to arrive at the calories required for each patient. Allowance must be made for variations such as obesity, malnutrition and unusual physical activity. In the case of the latter, the next highest caloric group is used, an example being the child who, during the summer holidays is indulging in much more out-door exercise in games, swimming etc. In the case of obesity, calories are reduced without sacrificing the growth factors in the diet, which means supplying adequate protein. In the case of illness, fever or operations, the diet is reduced one third and a standard routine figure for the average child should be CHO 150P 50 F—50 and this may be supplied by 1 quart of milk, 1 pint of orange and ginger ale, and three eggs, which supplies 1250 calories.

We remember the usual distribution of calories as being 50% CHO, 15% protein and 35% fat. The diabetic distribution is more like 40% CHO, 30% protein and 30% fat. The CHO may be increased at the expense of the fat making the diet more attractive for children.

The diabetic diets are now standardized as a result of the work of the American Diabetic Association and they range from 800 to 2800 calories and 125 to 350 gms CHO. This is a great advance for all concerned—patient, mother, doctor, and dietitian, and applies in all parts of the country.

We can choose the diet supplying the number of calories the child needs and then refer to the tables showing the amounts of the different foods which go to fulfill our requirements. The protein needed for growth and repair is supplied in ample amounts. By using the system of food equivalents or exchanges and giving the mother a list of these for each group, the diet can be varied from day to day without any important alteration in the amounts of food consumed. If the foods are changed, as we do naturally to satisfy our appetites, the result at the end of a week is satisfactory for all practical purposes. The new adjustment in the vegetable groups has been the inclusion of a number of the vegetables originally in the 5-10% group 2B in the no value list 2A. This allows more latitude in the amounts used and increases the bulk with a favorable psychological effect. Food preferences, economic status, and environment are also considered.

All diets must be supplemented with artificial vitamins to ensure proper growth and nutrition. Vitamin A is mandatory as the liver cannot convert carotene to A even with the aid of the thyroid hormone. Polyuria may wash out the water soluble vitamins. B. complex is important in CHO metabolism. Neuropathy is treated with thiamine and B 12. Retinopathy may be related to Vitamin B deficiency. Ascorbic acid—300 mgm. a day may help. Vitamin D is added also to prevent rickets and for growth. A multivitamin capsule is a convenient way to take care of vitamin requirements.

These diets approach those used for optimal growth of normal persons. In fact, they comply with all of Canada's food rules. The food is distributed throughout the day in 3 to 6 meals depending on the types of insulin used. 1/5 breakfast, 2/5 lunch, 2/5 dinner or 1/6 breakfast, 2/6 lunch, 2/6 dinner and 1/6 bedtime; or 2/12, 1/12, 4/12, 1/12. The full calculated diet is given at once. The amount of insulin required to balance this diet is found



by trial and error in the course of the following days until stabilization is attained.

## 2. Regulation of Insulin:

All diabetic children require insulin. It is futile to attempt any control without its use. After the glycosuria has been controlled, the daily requirement usually declines, but through the years of growth and during adolescence, the insulin need will gradually increase. Its value varies at different times of life. Patients change as to the efficiency with which they utilize the insulin. The rate of absorption may vary, depending on the level of the tissues at which it is injected. It must be under the skin and not into the skin or veins or muscles. The site must be changed and a definite plan mapped out on the body surface so that the same spot is not used oftener than once in two weeks. With this method of administration, the expected effect of the insulin is more certain. A child as young as 6 years can be taught to give his own insulin. Crystalline Insulin is the only one that can be given intravenously. It can also be heated if necessary. The others must be well shaken before use and stored in a cold place without freezing at other times. Syringes with one marking for measurement should be used to prevent confusion between 40 and 80 unit insulin. A rough estimate of insulin requirement is that one unit is needed to clear 4 mgs. of glycosuria. This can be calculated by multiplying the 24 hour volume in cc by the percent of sugar. After starting with one insulin, it should not be changed for another type until seven to fourteen days have elapsed. In changing from crystalline to a long acting insulin, the initial dose of the latter is about  $\frac{2}{3}$  of the original dose of crystalline insulin, and increases or decreases may be made as indicated.

Sufficient insulin must be given without hesitation to control the utilization of the diet necessary to satisfy all criteria for growth and development. The dose at first for those under 5 is 10 units, 5-10 years,—20 units and 10-15 years—30 units. It is adjusted up or down in order to meet all requirements and to secure maximum use of the dietary intake without causing hypoglycemia or allowing hyperglycaemia. Doubling the dose of insulin does not double its effect and CHO can be increased without a proportionate increase in the insulin requirement.

Four types of insulin are available and a fifth is now in use:

### 1. Crystalline or Regular Insulin.

Onset of action—	$\frac{1}{2}$ —1 hour	} 2-3-4 doses a day.
Maximum.....	3-4 hours	
Duration.....	4-6 hours	

This is the best insulin to use to begin treatment. It is the only insulin effective in the alleviation of ketosis and coma. It is also useful as well when the patient is in danger of vomiting and can then be given after eating and if the food has been retained. It is used in combination with long acting insulins for supplemental injections to control post prandial glycosuria. Two or four doses a day may be necessary. It is always used in children under 5 years of age. Children feel better when a limited amount of glycosuria is present. Hyperglycoemia of brief duration probably is not harmful.



## 2. Protamine Zinc Insulin.

Onset of action..... 4- 6 hours.  
 Maximum..... 12-16-20 hours.  
 Duration..... 24-32 hours.

This insulin is a relatively milky white suspension of insulin to which protamine and zinc have been added. PZI is replaced if early am. reactions occur, despite dietary adjustments. Likewise it is not used, as well as NPH insulin, if the protamine cannot be injected on account of sensitivity. Early morning reactions are dangerous and a source of great anxiety for the mother and child. On the other hand, nocturnal hyperglycaemia is a characteristic of diabetes in children and the long acting insulins have been useful in controlling this. PZI usually has to be supplemented with regular insulin to control post prandial glycosuria after breakfast and after dinner at noon. In this case, the regular insulin is injected separately. When mixed the excess protamine combines with the regular and the proportion of protamine insulin is increased. The action of the mixture is intermediate between PZI alone and other long acting insulins. The amounts are usually two of CI with one of PZI. The diet when PZI is used is distributed in four portions, 1/6 at breakfast, 2/6 at dinner, 2/6 at supper with 1/6 at bedtime to aid in protecting the child from hypoglycaemia throughout the night.

## 3. NPH (neutral-protamine-Hagedorn) Insulin.

Onset of action..... 2- 4 hours.  
 Maximum action..... 8-10 ,,  
 Duration..... 20-24 ,,

It is a suspension of crystals containing insulin, protamine, and zinc. It contains no excess of either protamine or uncombined insulin. It may have an overlap action extending into the following morning and a hypoglycemic reaction during the night.

More than 50% of diabetic children can be satisfactorily treated with NPH insulin. The distribution of the food should be 1/5 at breakfast, 2/5 at dinner and 1/5 at supper and 1/5 at bedtime. Generally speaking, a bedtime lunch is necessary as the peaks of the action are at 4 p.m. and 8 p.m. with a gradual fall during the night. One injection 1/2 hour before breakfast is sufficient for the average case. Others will require the addition of regular insulin before breakfast and this can be added and given in one injection without altering the duration of action of either insulin. This latter is true of Globin insulin also, but does not apply as stated above to PZI.

## 4. Globin Insulin

Onset of action..... 1- 2 hours  
 Maximal action..... 6-12 ,,  
 Duration..... 16-20 ,, (24)

This is a yellowish aqueous solution which owes its long acting properties to the slowness of the breakdown of its active principle as compared to the others which are slowly absorbed from the depot. It is a better insulin if the patient is subject to nocturnal reactions. Its hypoglycaemic peak is in the



afternoon when the patient is wide awake and able to take food. It is therefore indicated in those patients whose glycosuria occurs during the 12-14 hours of the day. Usually it is injected 1/2-1 hour before breakfast and may be mixed with regular in the same syringe without any change in its action. It is possible to use two smaller doses, one in the morning and one in the evening.

Lente Insulin (IZS, Insulin Zinc Suspensions) is the latest addition to our long acting types. It is a combination of semi-lente 3 parts which acts for 16-18 hours, and ultra-lente 7 parts which acts for 30 hours. The resulting lente insulin covers 24 hours. By changing the proportions, variations in the time of action may be achieved. Lente may be combined with more ultra lente. Local allergic reactions are still possible but are much less frequent. Duration of action varies from one patient to another and depends on the size of the insulin crystals. The dose may have to be increased as much as 50%, but this is associated with improvement in control, which is more even and hypoglycaemic reactions are smoother. Effect is greatest during afternoon and evening. Nocturnal reactions are uncommon. Dietary distribution is important. CHO should be spread evenly through the latter half of the day. These combinations of insulin will require further clinical trials before they will be safe for distribution, and use and replacement of those now being utilized.

When more than 50 units of a L.A. Insulin are necessary, better control can be secured by dividing the daily dosage and giving 2/3 before breakfast and 1/3 before supper. This may increase the effect and the child will require less eventually. It will also reduce the danger of insulin shock during the late afternoon and evening when control is still difficult. When the child is the labile type with rapid fluctuations, and variations in exercise, such cases are best treated with smaller doses of long acting insulins and two to four doses of regular insulin. As a result the child will only have mild insulin shocks if any at all.

NPH, PZI, and CI may be combined in such dosage as will cover the whole 24 hour period, securing the benefits of the various times of action of each. For example, PZI one part to cover the night, CI, two parts to cover the breakfast and noon meals and NPH four parts to cover noon and evening meals.

Urine testing daily is the safest guide for evaluating the level of control of the diabetic child. The test should be done two to four times a day, i.e. a.c. and h.s. The morning test tells whether the L.A. Insulin is acting well enough; the 4 p.m. whether enough CI is being used in the a.m. Reactions before lunch mean too much CI at breakfast and so on. Co-operation for this testing is not difficult because it is evident to parent and child the help they derive from it. It becomes a part of daily routine. Keeping a record of these tests together with other information in a diabetic diary is very valuable for all concerned. It encourages the parent and child to use their judgment and initiative in maintaining the minimal amount of glycosuria. It is of help to the physician in estimating the needs in relation to diet, insulin and exercise.



### Insulin Reactions:

The symptoms of hypoglycaemia are more vague and may be more prolonged when any long acting insulin is used. They include drowsiness, lassitude, headache, fatigue, followed by sweats, tremors, hunger, nervousness, excitement, and finally unconsciousness. They are not relieved by one dose of CHO, and repeated doses of sugar in some liquid form are necessary.

The control of insulin reactions is very important. Children, parents, teachers must be taught to recognize the early symptoms. Increased activity, delay in eating and overdosage of insulin are the most common causes. The level at which hypoglycaemia with symptoms occurs varies from day to day in the same child and from one child to another. Ordinarily the threshold is between 50 mgm and 70 mgm %. Unconsciousness probably occurs at the 30 to 40 mg % level. The composition of the food may vary as well as the rate of absorption. The amount of endogenous insulin available also changes and emotional upsets play an important part. A tantrum may set off a chain reaction. Remember that a change of behaviour may be the result of the hypoglycaemia and precautions must be taken.

In the early stages of management of the child and his diabetes, he should be deliberately given the experience of the effects of a low blood sugar. The symptoms caused by lack of available glucose include hunger, headache, irritability, loss of memory, double vision, incoordination, one or all. Those on the other hand due to hyperadrenalinemia caused by the low blood sugar are pallor, sweating, hot and cold flashes, trembling and weakness. Hypoglycaemia of increasing severity results in loss of consciousness. Mild symptoms may be latent during the sleep and become more acute when awake. The dangers of attacks with unconsciousness during sleep are real, and should be avoided by rearrangement of the diet and insulin. It has now been confirmed that hypoglycaemia can cause irreparable damage to the brain, e.g. epilepsy.

All diabetic children should carry sugar or candy, which is immediately available to overcome the insulin reaction at the first sign of its onset. Children soon learn to recognize the signs. There is always the possibility of the child overdoing this in order to satisfy his taste for sweets, but even so, hyperglycaemia due to this does no harm while a continuing hypoglycaemic state may be serious. If the child is using crystalline Insulin, the reaction subsides as soon as the sugar is absorbed which is only a matter of a minute or two. This type usually does not recur. With the use of the LA Insulins, the action may continue over a period of time and require continuing doses of sugar to control it until there is no further danger. Combining a quickly absorbed sugar with one such as bread, biscuits with milk which are slowly absorbed, may solve the difficulty. Deep shock and unconsciousness require I.V. glucose, 5-10-20 cc of 50% solution. The response to this is dramatic, the patient becoming conscious in a matter of seconds. This injection is used in the differential diagnosis of coma.

### Complications:

1. **Lipoid dystrophy** 80% of diabetics show this complication in varying degrees. There is no known cause or treatment.



2. **Tuberculosis** is 20 times more common in diabetic children and is the third cause of death in juvenile adolescent diabetics. 90% of diabetics contracting T.B. have died of that disease.
3. **Delayed Growth** including sexual maturation with dwarfism—which is corrected by good control, high calorie, high protein diets with thyroid and testosterone
4. **Skin lesions—Xanthoma, etc.** Urticaria is more common in adults.
5. **Epilepsy**—The incidence is higher in juvenile diabetes, as a result of recurring hypoglycaemia. These patients respond to Crystalline Insulin better than Protamine Insulin with blood sugar levels between 150-200 mgm%.
6. **Degenerative diseases** are common as the children grow older and are related to the degree of control. They are now the chief problem of juvenile diabetes. They account for 50% of the mortality of adult diabetic persons. Among them are listed retinitis, neuropathy, cataracts, nephrosclerosis, azotemia, hypertension and the so-called Kimmelstiel-Wilson syndrome with its variants. It may be found in children and adolescents whose diabetes is of ten or more years duration. There is disagreement as to what causes atherosclerosis. Diabetes tends to accelerate its development, or is an incidental aggravating factor. It has been postulated that the high incidence of vascular changes in diabetes may be attributed to the increased concentration of colloidal lipids in the body fluids. This secondary mild disturbance of lipid metabolism may be responsible for many of the late degenerative lesions. The feature in diabetic atherosclerosis is the tendency for lipid accumulations to form not only in the large arteries, but in very small branches that are ordinarily not involved. The cause of the extension to such a wide area in diabetes is unknown. Possibly we should give more attention to the control of blood lipid levels, and some of the late complications of diabetes would be prevented.

#### 7. **Acute infections:**

Diabetic children, whose glycosuria is well controlled are no more susceptible to infection than normal children. They respond to treatment well. They are good surgical risks. It is important to remind the patient that he needs more insulin, not less, when he is sick.

All infections should be treated vigorously and promptly. This means the usual care for a sick child and in many cases an increase in the insulin dose or a reduction in the food intake or both. The efficiency of insulin is impaired in the presence of infection. Acidosis is precipitated quickly and must be looked for and guarded against. Better results are obtained by using regular crystalline



insulin at 2-4-8- hour intervals and using a continuous fluid diet. A value of CHO 150P. 50 Fat 50 can be satisfied by one quart of milk, one pint of orange juice and ginger ale and three eggs with a caloric value of 1250. The early use of anti-biotics is important.

#### 8. Coma or Diabetic Acidosis;

Diabetic coma is the chief cause of death but is a preventable condition and the child should never be allowed to develop ketonemia. The menace of ketosis and infection is perpetual. The two main precipitating factors are infection and omission of insulin. These lead to a more rapid appearance of coma if dietary indiscretions have occurred. In the presence of infection, insulin resistance is encountered and the patient needs more insulin, not less, as he may think. The utilization of carbohydrate is impaired, and the metabolism of fat is accelerated. However, fat cannot be completely oxidized and therefore acetone bodies are formed. When the capacities of the kidney and lungs to excrete acetone bodies are exceeded, the latter accumulate in the blood. Excretion of these substances in the urine carries off fixed base which intensifies the acidosis already present. This process together with the diuretic effect of the hyperglycemia, accounts for the intense dehydration which may ultimately produce vascular collapse. As acidosis increases, oxygen utilization in the brain is reduced. If reduced severely enough, irreparable damage can be produced.

Recovery is dependent upon rehydration, effective insulin action, and the attendant anabolic effects. Insulin is the important consideration, first, last and always. Crystalline Insulin is always used. It is given until such time as blood sugar levels show that glucose is being utilized. The method and dosage may vary. We prefer doses at 1/2 hour intervals and the size of the dose is based on the degree of unconsciousness. The CO<sup>2</sup> combining power, if available, is of great value. It is important to give enough insulin to meet the situation. The smaller children up to 5 years will respond to 10-20 units. Babies need 5 units, older children require 20-60 units, and even 30-75 units for the 15 year olds or more. The clinical condition of the patient is assessed and the urine examined before each dose. The high B.S. of 300 mgm% 500 mgm% and 700 mgm% call for large doses up to 150-250-350 units. Doses may have to be doubled in the presence of infection. When large doses are given at longer 4-6 hour intervals, part of the insulin may be destroyed. There is not much danger from hypoglycaemia while glycosuria is present. It is the ketosis which is killing the patient and it is wiser to overdose with insulin than allow it to continue any longer than necessary. Ketonuria is not permitted.

Frequent urine tests are carried out with the aid of an indwelling catheter. CO<sub>2</sub>CP and blood sugar tests are important guides if available. The ideal set-up is to have laboratory staff on duty to take care of all examinations until there is no further danger. Restoration of blood volume is a primary necessity



and large amounts of salt solution must be supplied up to 10% to 15% of body weight—or 80 to 100 cc per pound or 3000cc to 5000cc. The question of dextrose administration may be debatable. It is best to delay giving it until the insulin action becomes effective and when the blood sugar is falling. Additional diuresis caused by dextrose and hyperglycaemia can be dangerous with more loss of electrolyte, and particularly with K. depletion as shown by flaccid muscles and shallow breathing. As glucose is utilized and sodium supplied, K. tends to re-enter the cells with depletion of the blood serum level of K. Watching the urine output is a simple way of finding out when dextrose should be given. Blood sugar values are not needed necessarily. When the extreme diuresis lessens as measured by the rate of drops, then it is time to give dextrose, which is needed to accelerate glycogenesis. Potassium depletion may be serious as shown by the laboratory findings or EKG. The question is how much to give and when. It may be safer to rely on oral intake, using K containing foods such as broth and orange. KCL may be added as well, with EKG control preferably. If the kidneys are excreting well, 2-3 grams (40-60 mEq) of KCL liter of I.V. solution may be safely added. Giving K. during the phase of depletion and high serum K may be dangerous.

The criteria for improvement include decreasing blood sugars, fall of inorganic phosphorus and K in plasma and elimination of ketosis. Acetest tablets may be used to follow the decrease. Capillary tubes of 1-2 cc with blood from a skin puncture will yield serum for the tests. A drop on a series of tablets will supply satisfactory information. Ketone bodies disappear from the blood some time before they do from the urine. The whole process of ketosis is reversed by—(1) instituting glucose utilization with insulin (2) and replacing of lost electro-lytes and fluids.

Prognosis is influenced by the degree of hemo-concentration, tissue damage and cell damage. The factor most closely related to mortality is not the hyperglycaemia or severity of the ketosis, but rather the degree of acidosis as measured by the length of time it has been high. Long continued acidosis causes irreversible tissue damage and unconsciousness is related to diminished cerebral function. Recovery should be 100%.

Behaviour problems are very important in the management of children. We speak of the diabetic personality—lonely, bored, unloved—he reacts with anger, cheating, lying with regard to food intake and insulin dosage. Conflict with parents and doctor may result in open rebellion. Labile emotional reactions cause labile fluctuations in insulin requirements. Anxiety and tension accompany insulin reactions. Fits of anger, aggressiveness increase the glycosuria. Under nutrition may be a factor and responsible for difficult behaviour. Psychological problems are more common during adolescence.

These children need patience and sympathetic understanding. They must always be trusted and never accused of cheating and breaking diet, even though we know that this may be happening. It is important to satisfy their hunger with additional food and insulin and this reduces the temptation to take extra food. Any juvenile patient who is not doing well must be evaluated from the above point of view.



### 3. Exercise:

This plays a very important role in the utilization of carbohydrates, to a much greater extent in children than in adults. We must encourage these patients to be healthy and active, to take part in the regular activities of their age group—to take part in competitive games and sports. When an increase in the routine activity is planned, more food may be eaten to allow for this expenditure of energy. It is better to increase the amount of available CHO before and after or during the exercise, rather than confuse the picture by changing the dose of insulin. Experience will determine how much is necessary for varied amounts of activity. Available sugar must always be carried and it should be eaten as soon as any of the symptoms of attack are felt. It is even safer to have glycosuria during these active periods than to allow the blood sugar to reach levels that interfere with the exercise.

### 4. Education:

The child and his family must be helped to achieve a complete and wholesome acceptance of the disability and the disciplines which go with it. He can be taught the calculations of his diet—the value of foods and their equivalents so that he can learn to eat the proper foods and the amounts when eating away from home. He must know that more food is required with additional exercise and games and less food and more insulin when he becomes ill. The importance of any infection must be appreciated.

He can be taught to measure and give his own insulin and to recognize the different strengths. This should be accomplished as soon as possible, even as early as 6 years of age.

He must recognize without fail the signs of low blood sugar levels and take steps to overcome them.

He must learn to test his own urine and evaluate the results and keep his daily records.

Identification cards should be carried by all diabetics. The C. D. A. is now issuing buttons which can be worn on the clothing under the lapel as further protection. This identification is particularly necessary for older children who are on their own during the day. Police are being instructed to look out for this identification on all patients found to be acting in a strange manner or unconscious. If the additional exercise is planned, i.e. games, swimming, etc. additional CHO must be taken before and during these activities.

Group psychology is more helpful for the child and his parent. He should learn to know Doctor, Nurses, and Dietitians. He should be in contact with his Doctor at all times and should have a physical examination every three months. This should include a study of weight and height and progress along the developmental levels in the right direction. The chest should be X-rayed—and the bones for bone age. The blood cholesterol should be watched and ac. and post prandial blood sugar percentage noted. Diets need revision upwards.

The parents and child should join the local chapter of the "Canadian Diabetic Association and subscribe to the magazine Forecast. A handbook



published by Connaught Research Laboratories gives valuable assistance for handling of the various preparations of Insulin.

**Objectives in diabetics should be:**

1. Early detection.
2. Adequate nutrition—the optimum should be sought.
3. Conformity with normal living.
4. Improvement of the Psychologic, Social and Economic status.
5. Elimination of discrimination in business.
6. Safeguarding of the pregnant woman and decrease of foetal mortality.
7. Prevention of degenerative complications.
8. Prevention of death.

From this it should be evident that the function of child growth and development, the function of adolescence, the attainment of an education, the function of the adult, the reproduction of healthy children, and the goal of social and economic progress can all be accomplished by the diabetic child. He needs no quarter. His diabetes must not be a crutch. He should compete on an equal basis with his school mates.

The future is brighter now with increasing understanding of the role of the endocrines in carbohydrate metabolism and the discoveries of better insulins. A new era with results as great as the insulin era is opening, pregnant with possibilities. The path ahead is already well charted.



# "The Doctor and Humanities"\*

Dr. John Wickwire

Liverpool, N. S.

It is indeed an honor and a pleasure to be invited by the Faculty of Medicine of my Alma Mater to address this student body to-day. As I look into your faces, I realize that my audience is a group of clever, hopeful young men. You have been screened through high school and your pre-medical course, so that you now surely represent a group of students, who have been blessed with unusual talents. As your life's work you have chosen the practice of Medicine. Use your God-given talents, so that our profession may soar to even greater heights than it has yet reached.

To be a successful physician, one should be possessed of a healthy body and soul, a sound mind, a good personality, a sympathetic unselfish disposition, courteous, and always ambitious to increase his medical knowledge by continuous study.

Some of you are brilliant and it is quite possible that you may become our professors of Medicine; but, to the rest, the larger group, your contribution may be equally great. I quote from the American Practitioner,—“The man with a healthy body and a happy disposition is probably better prepared for a good life on this earth than is the man who lacks these things but has a broad splash of intellectual genius.”

To you, who are about to graduate, I would like to make a few observations on a choice of location, in which to start your life work. It is the long view that counts and a doctor must remember that he cannot make too many moves during his lifetime. Do you wish to practise in the country, the town, or in the city? There are many sections of the country which require doctors, and where you will develop a practice quickly. If you like country life and country people, it is there you should go; some of you will remain in rural districts, while others will use it as a stepping stone. Should you prefer a town, then survey these localities, having consideration for the population, the number of doctors, their age, the town itself and the local industries. It is very important to choose a locality in which you will be contented, and where your wife and family will be happy. Remember that your financial burden will be greater in the town than in the country, both for business and family life. Should you choose the city, the beginning will be even more difficult and the initial outlay greater; but, if this is your wish, wait it out and you will eventually realize your ambition.

Do you wish to become a specialist? Many early graduates have dreamed of the day when they would be an Osler, a Penfield or a John Stewart. Should you discover that you have a particular liking and aptitude for some special branch of medicine, and if your financial position and age justify it, it is well that you take adequate post-graduate study. Do this as soon as possible, for life is short and one learns more quickly when young. Then again, at an



early age, you will have laid the foundation on which to construct your building. The earlier the foundation is begun, the stronger will be the eventual structure. To quote from Bacon's essay on Custom and Education; "**For it is true, that late learners cannot so well take the ply, except it be in sound minds, that have not suffered themselves to fix, but have kept themselves open and prepared to receive continual amendment, which is exceedingly rare**".

We must realize that most of you will remain General Practitioners, and do not think less of yourselves. Become expert G. P.'s by keeping up-to-date by continuous study, that will increase your knowledge in what is perhaps the greatest specialty of them all. Do not neglect to get away for a period of study every one or two years. It is not only the knowledge acquired but, more particularly, a stimulus for further reading at home. Devote extra study to some particular branch of your profession, so that, with the passage of time, perhaps years, you may become a specialist in that field. It will serve as a hobby and add lustre to your work.

May I mention here a few important requirements in the acquisition of knowledge. First, the desire to learn; second, interest in the subject; third, a good teacher; fourth, time to study. Medicine offers such a variety of topics, that you may surely find one, which stimulates, in you, a spontaneous fascination. As one pursues this study, his interest inevitably increases as his knowledge grows.

After the first two years in practice, the time available for study will be very limited; yet, the student must be willing to forsake pleasures and spend long hours in the pursuit of knowledge. Read some of the current journals and follow the treatments there recommended, rather than that so freely given by the various drug firms. You will not be able to keep up with all the advances in medicine but the General Practitioner should have and overall picture of what is going on. There is an old quotation: "**Be not the first by whom the new is tried, nor yet the last to lay the old aside.**" This, in my opinion should apply to the G. P.

Fortunate is the individual, who is offered the opportunity to sit at the feet of great clinicians; yet, much of our information is to be obtained from books. There are, however, some phases of post-graduate training that we must get first hand; for example, in Cardiology, the interpretation of the cardiogram, the systolic and diastolic gallop, a split second sound, etc. The same holds true for all the specialties; and, therefore, it is imperative to spend some time and, incidentally, money with these great masters.

Through the generosity of the Kellogg Foundation and Dalhousie University and the Faculty of Medicine, it is now possible for you to obtain excellent post-graduate training at a much lesser cost than has been my experience in the past. I congratulate the faculty on this progressive move; for I am convinced that the quality of medical service provided to the public is largely dependent on the ability training and integrity of the General Practitioner.

It may seem that I have digressed far from my subject which was allotted to me, namely, "**The Doctor and Humanities**"; and yet, you are primarily



physicians and it is in this field that you will render your greatest service to humanity. To be a good physician, you must give to your patient, the best that modern medicine provides; and to accomplish this you must always be a student.

When this university confers upon you the degree M.D., C.M. you shall have at once assumed the responsibility of a great heritage, that of respect, confidence, and prestige, which have been established by the great physicians of the past, and maintained, to this day, by those yet living. May I admonish you to do nothing, by word or deed, that will weaken the structure which has been so well built and so well preserved over the years.

Much will depend on your moral conduct. As we read the biographies of many of the great physicians of medical history, we are at once struck by their strength of character. I regret to say that, as we pass, we see many of our brethern indulging, too freely, in *Spiritus Fermenti*. It is a sad spectacle to follow a promising young man slipping slowly, but inevitably, into the arms of Bacchus. Othello—"O God! That men should put into their mouths an enemy to steal away their brains."

Do not permit your speech to bring reproach upon our profession. It grieves me to hear a physician use vulgarity or slang in his discourse; it detracts from the subject and lessens the man. How much finer it is to express one's thoughts in well-chosen, dignified English.

You have much more to offer to your community than Medical service alone. Every professional man, be he a doctor, a lawyer or a business man, will be called upon, and should respond, to requests for leadership in his community. It may be the Church, the School, the Service Club, the Town Council, and possibly the Provincial or Federal Government. Select one of these, or another project, and do it well. It will be good for your soul as well as your mind and body. **"To thine own self be true. It follows as night the day. Thou canst not then be false to any man."**

Above all do not neglect your church. The commandment says, "Six days shalt thou labor and do all thy work." For the physician perhaps it may reasonably be said, "Six days shalt thou labor and do **practically** all thy work." Many laudible reasons are found that seem to adequately justify our absence from the family pew. Yet many of our finest and busiest physicians were or are in church on Sunday mornings with their families. I think of a few. Dr. John Stewart, Dr. Jordan Smith of Liverpool, Dr. Henry G. Farish, who built the house in which I live in Liverpool, 115 years ago. These men are gone, but their records remain. We still have our own Dr. Corston, who has long been an example to many of us. One of the busiest physicians in the city, he appeared regularly on Sunday mornings, with his four boys, each of whom took his turn to sit in the front pew with the grandmother, who was very hard of hearing. This man's endorsement of the Church was one of the finest inspirations that the clergyman, my father-in-law, experienced in his whole ministry. A great physician must be a good man.

As our Hippocratical Oath states, **"I will impart this art of medicine whatsoever house I enter, there will I go for the benefit of the sick,**



be they rich or poor," so let us live. Some physicians are forgetting the prime purpose upon which the science of medicine was created. Is the lust for money becoming too great? Is the glamor of being an M.D. obscuring their vision? We have been criticized in the daily papers and in magazines and I sometimes wonder if our prestige is waning. The future of the profession rests with you young men, who are just being launched on your career. You have been created for something high and honorable and more inspiring than the lust for money. In your hands lie the health, contentment and happiness of many people.

True, you must live; and you must earn more than a good salary because your years of work are shorter and your hours longer than any other profession. But do not look at a patient with the remuneration in the back of your mind. He is a human being first and, whether he be rich or poor, he deserves the best you can give him in medical science and understanding. Always remember that the rich will pay you in money, but some of your greatest awards will come from the lips of the suffering poor. Again I quote Francis Bacon: "**Money is like muck, not good except it be spread.**"

The poor we shall have with us always. Dr. Jordan Smith of Liverpool once said to me while we were administering to a drunk who was brought to my office, some 25 years ago, "There are three kinds of poor; God's Poor; the Poor Devils and the Devil's Poor. We enjoy looking after God's Poor. The Poor Devils we don't mind helping. But the Devil's Poor usually have to look after themselves." How true this is.

Now I would like to lend a word in behalf of this later group, the Devil's Poor. Don't be too hard on them. They have been born into the world ill-equipped for the demands of society. Their mental inheritance has left much to be desired, their environment has been poor. They have not learned the proper respect for a clean body, a clean tongue and a clean mind. Deceit has on many occasions obtained for them a coveted prize. Doubtless his home life has been most unhappy or he has had no home life at all. They develop a psychological "Quirk" and a potential criminal is born. They rebel against society and upon occasion, must be removed. May I ask that you answer this question, Are these people responsible for their behaviour? Certainly not.

They are in many instances, victims of circumstances, and they will become our problems if and when they become physically or mentally ill. Be kind to them, try to understand them, and oft times you will be surprised and gratified by their response to graciousness and understanding.

Now a word on Hobbies. It is well that the physician should develop Hobbies according to his aptitude, for medicine alone, will, at times, to most of us, present some monotony, without the refreshment of relaxation and play. I have spoken to you of the value of reading good medical literature. May I suggest that your most profitable hobby should be reading outside of your medical field, for enjoyment, which will also improve your mind and vocabulary. Choose well, as your time for this type of reading will be limited. Some may be interested in music or art. Last year at least three of our Nova Scotian doctors won prizes in the art Salon of the C.M.A.; and one of this same



number wrote a play which was much enjoyed at the Centennial Ball last autumn. The presidential address, upon the same occasion, was a masterpiece of literature interspersed with rare humor. Still others are sponsors of the Ballet, the Opera, and the Symphony. In our youth we have enjoyed many and varied sports; now time will permit your indulgence in possibly one. I find that one enjoys most that which he loved best when he was yet young.

Yours is a life of service and many of the lighter pleasures must be dismissed when duty calls. I hope each of you realized this when you chose your profession. At times, even your wife and family must take second place. Service and not money must be your prime objective. Few of our number ever accrue a large estate, except by endowment or by fortunate investments. If money is your goal, I must hastily add that you have chosen the wrong profession, for there are other finer and faster ways to do this than in the practice of good medicine. Your greatest source of happiness will be **peace of mind**, which has no monetary equivalent. This is a sense of satisfaction and security, that comes to one who has no remorse. You have done your best, and at the end you will say with the Apostle, **"I have fought a good fight, I have finished my course, I have kept the faith."**

I should like to close my paper with a few words on medical ethics, but time does not permit me to go into this in any detail. When you enter a new practice, your patients must come from those who have been the patients of other physicians. This will, at times, cause jealousy, but if you are always and surely ethical, both in dealing with the patient and the other doctor, this resentment will soon pass, and you will be accepted by the community and by the profession. Do not, by hasty ill considered words, disturb the reputation of another physician. Do not seem to tear someone else down to build yourself up. You may not realize it, but your better class of patients do not think any the more of you for so doing. If you do not agree with the other doctor, do not relate it to the patient. Time will prove your own worth; and your conscience, with whom you yourself have to live always, will be clear. **"Do to others as you would that they should do to you."**



# Watch Your Words

H. W. Schwartz, M. D.

Halifax, N. S.

"Here's a pretty state of things!

Here's a pretty how-de-do."

"The Mikado"

THE doctor and the patient see the nurse from quite different angles. To the physician she is his first assistant who he expects to carry out his directions to the letter and to be able to recognize any unfavourable developments and to report such promptly.

To fulfil these average, if not minimum, requirements intelligently she must have had a bird's eye view of such subjects as anatomy, a speaking acquaintance with bacteriology in order to carry out aseptic technique, an elementary knowledge of disease and of pathology in order to visualize what is actually going on when at the bedside, taking ward or clinical instruction.

What does the patient expect from the average private duty nurse? I think it can be summed up in "to be made comfortable", in short, that all manipulations and administrations be carried out with a minimum of disturbance.

On one occasion when too ill to read I asked my nurse to read to me. Now the reading was of this order—The cat ra r-a-n ran af t-e-r after the whit w-h-i-t-e white mouse. Never was the ear of man subjected to such mispronunciation, halting and monotonous delivery. Just as soon as I could, without hurting her feelings, I pretended a need for more urgent attention.

In a very well intentioned attempt to improve the quality and usefulness of the private duty nurse I approached the Superintendent of Nurses with the suggestion that less organic chemistry—which is straightway forgotten and probably never understood—be replaced by a course in elocution, the art of speaking distinctly and intelligibly.

How was my suggestion received? Up went the chin, down went the occiput and the nose was accurately levelled and the fire of indignation, scorn and contempt was delivered point blank—"The very idea that a nurse was unable to read! No nurse was admitted to the School of Nursing who hadn't a grade XI certificate." I was not denying the ability to read but I was stating from experience the inability to read aloud—pleasantly and with expression. The Lady Superintendent was so annoyed with me and by my wild suggestion that I doubt whether she really understood what I was talking about.

I had a patient possessed of considerable wealth—in which he differed from you and me. His bodily condition required the technical services of a nurse, for about five minutes out of the eight-hour period. His vision was becoming somewhat impaired and he expected to be read to for an hour or so.

A particular nurse reported for duty. Being somewhat observant she was quick to recognize the quality of the paintings that adorned the walls—the pieces of furniture with their slender and beautifully proportioned legs—



and decided that her patient was one of taste and refinement. Now a wealthy widower is fair game for any female and her chances are enhanced provided

“Her legs were such Diana shows  
When tucket up she a-hunting goes  
With Buskins shortened to deserie  
The happy dawning of her thigh.”

“The Vision”

This young woman had no intention to be out-legged by either the goddess of the chase, although not averse to a-hunting go, or by the late Mr. Hepplewhite or Mr. Sheraton but alas—

Full many a shapely limb is born to blush unseen,  
And waste its loveliness on the cataractous eye.

Unfortunately for her his hearing was better than his vision. Her reading was so mumbling and stumbling—pronunciation so abominable and totally free from expression that her golden opportunity came to an abrupt end.

A course in reading aloud should be given to those intending to do private nursing.

“Of that there is no manner of doubt—  
No probable, possible shadow of doubt—  
No possible doubt whatever.”

“Gondoliers”

We have all heard of such amazing things as deaf schools, blind schools and pathological institutes. However let us pass from the handicapped and diseased and give attention to some other equally interesting matters although not quite so fanciful and less of a tax on our imaginations.

**Weapon**—an instrument of offense or defense: anything used or usable for inflicting bodily injury. When a surgeon is heard in a lecture to refer to the weapons used in an operation—well, I suppose in a sense he may have been justified in using the word: whisht! perhaps at this point it would be kinder to close the operating room door.

Reading a case report we were told that the young patient was “**auditorily and visually hallucinating.**” What a world we live in! On the one hand—there is the possibility of being destroyed by an atomic bomb, on the other the possibility of being hallucinated.

This lad had “**delusional ideation**” (whatever that may be) but it seems that by the Grace of God he no longer suffers from this.

Among several characteristics that help to identify his mental state was “**overt masturbatory activity.**”

All that this jargon amounts to is that the patient had auditory and visual hallucinations, (i.e. perceptions without sensory foundations), delusions, (i.e. false beliefs which could not be corrected by an appeal to reason or experience and were out of harmony with his education or surroundings), and



furthermore he openly masturbated. There is no difficulty in describing the condition in simple and accurate English.

We all have read and heard the expression that "**the patient was operated**". Supposing you were asked to describe the method you would adopt "to operate" a patient. The only example I can think of at the moment is the childhood game of wheelbarrow. A "operated" B who first laid himself face downward on the ground and stiffened his limbs; A grasped the left ankle of B with his left hand and the right ankle with the right hand, then B rose on his hands and walked on them as A "operated" him. If, for example, A swung to the right B of necessity had to go to the left willy-nilly—in short he is being "operated".

Obviously when the statement is made that a patient is "operated" when he permits himself to be **operated on** does not make sense.

What do you think of this one? A "**solubilizer**" was used. etc. What pray tell is the matter with solvent which is easier to say, to spell, and moreover is to be found in reputable dictionaries.

Paracentesis as used in otology is a surgical operation. To write that "**the drum was paracentesed**" seems to me to be no improvement on the drum was "incised", a word that everyone understands.

"It is unwise to appear in court unless one is certain as to the '**sort of expertise**' one is expected to display". What is the matter with "type of knowledge" whether it is ophthamological, obstetrical or urological, that one is expected to display.

We read dangerously nowadays. Pay no attention to what may happen but only to what may **eventulise**. If you do not watch out you may be hallucinated, operated, peracentesed, expertised or (this you must say quickly to realize the seriousness of the threat) solubilised.

To avoid such calamities some recognized standard of spelling should be required. The Canadian Geographical Journal has adopted the Concise Oxford Dictionary, an example medical publications could follow with profit.



# Some Canadian Women in Medicine

## PART II

Muriel G. Currie

Halifax, N. S.

**D**OCTOR Mary MacKenzie, a sister of Doctor Jemima MacKenzie, was born at Waterside, Pictou County and graduated from Dalhousie in 1905. In November of that year she went to India as a medical missionary of the Presbyterian Church in Canada and remained there for six years. Following a post-graduate course in London she returned to Canada in 1911, married Rev. Alonso Smith and moved to Ontario. She was the first doctor to do medical inspections of rural and urban schools in Ontario, and had a part in starting nursing supervision of schools in Nova Scotia. She retired in 1935 at the age of sixty-nine and travelled around the world spending two years in India and then returned to Pictou. At the age of eighty she broke her hip and was told she would never walk again, but later she recovered to the point where one would never have known it had been broken.

She died on April 30th, 1955, after an illness of only a few days, in her eighty-eighth year.

Doctor Blanch Munro graduated from Dalhousie in 1904, and worked in India as a medical missionary. After some years there she married Rev. J. A. Crawford and lived in Edinburgh.

Doctor Stella Messenger graduated from Dalhousie in 1904, and took post-graduate work in England where she married a Mr. Pearson. During World War I she covered a country practice of a twenty-mile radius around Sherbrooke in Guysborough County, and later practised in Lawrencetown.

Doctor Katharine Joanna Mackay from Pictou County graduated from Dalhousie in 1895. She practised in New Glasgow with her brother, and later accepted a government position in Honolulu. Back from there around the Horn she came in 1902 to marry an old neighbour, Mr. J. R. MacKenzie. They moved out West and she practised in several localities until she died of blood poisoning in 1925, although she had actually retired about 1918.

Doctor Annie Hennigar graduated from Dalhousie in 1906 and practised at Noel, Hants County. She married Mr. Frank Sanford, and died in 1950.

Doctor Eliza Perley Brison graduated from Dalhousie in 1911, and for many years was in the Department of Psychiatry in the Department of Health in Halifax. She has now retired and lives with her sister at Upper Rawdon in Hants County.

Doctor Ella Pearl Hopgood graduated from Dalhousie in 1920, and was on the staff of the Nova Scotia Hospital at Dartmouth. She has now retired and lives in Dartmouth.

Doctor Grace Elizabeth Bernard Rice graduated from Dalhousie in 1903, took post-graduate work in Edinburgh and Dublin and came back in 1911 to practise in Halifax, and has now retired and lives in Halifax.

Doctor Louise Alberata Pennington graduated from Dalhousie in 1916, and during the last year was engaged in giving anaesthetics at the Victoria General Hospital in Halifax. She married Mr. F. C. Collier, and they now live in Ottawa.



Doctor Mabel Gladys Patterson graduated from Dalhousie in 1921, and practised for many years in Dartmouth. She has now retired and is living in Dartmouth.

Doctor Ada I. Wallace, graduate of the University of Manitoba in 1922, was the first woman coroner in Manitoba, and was appointed medical health officer of Franklin and Montcalm, Canada, by the Provincial Government.

Doctor Robert Bond graduated from Dalhousie in 1925. She married Professor E. W. Nichols, and since his death has been doing work in anaesthesia in Halifax.

Doctor Elinor F. Black was born in Nelson, British Columbia, and absorbed from her Presbyterian background the high ideals and tenacity of purpose which led her to undertake and continue the study of medicine. She took a business course on the side to provide a ready means of financial support in a field traditionally more feminine than medicine.

In 1930 she was graduated cum laude from the University of Manitoba Medical School. Post-graduate years included internship in Winnipeg and England, followed by general practice in Winnipeg for six years. During this time a preference for obstetrics and gynaecology became apparent in her work and interests. In 1933 she was appointed assistant in obstetrics and gynaecology at the Winnipeg General Hospital and assistant demonstrator at the University of Manitoba, and in 1937 she was appointed as lecturer. In 1938 she became a Master of the Royal College of Obstetrics and Gynaecology, and following that she spent six months as a resident in Gynaecology at South London Hospital for Women. She now practices as a certified specialist in obstetrics and gynaecology in Winnipeg. She spent 1948 in the United States, the United Kingdom and Sweden. In 1950 she was elected a Fellow of the Royal College of Obstetrics and Gynaecology, and in 1951 a Fellow of the American College of Surgeons. In 1953 she was appointed obstetrician and gynaecologist to the Winnipeg General Hospital. She is the first Canadian medical woman to receive such an appointment as Professor in the Department of Obstetrics and Gynaecology at the University of Manitoba.

Doctor Anne Frances Linder graduated from Dalhousie in 1934, and now practises with her husband, Doctor J. S. Hammerling, in Halifax.

Doctor Thelma S. Miner who graduated in 1944 from the University of Alberta at Edmonton, was the first woman appointed Medical Health Officer to Saskatchewan's regional health service. She is now practising in Assiniboia, Saskatchewan.



# Drug Addiction\*

George Fraser

Vancouver, B. C.

HONOURABLE members of the Senate, may I be privileged to present my evidence regarding the problems of Drug Addiction. I do so with reluctance and timidity purely on the basis that there is a tendency to classify individuals presenting my point of view as visionaries and theorists. I am neither. My evidence is based on training, experience, and insight. I represent my point of view at this time as a citizen of Vancouver and a father of a family. By the same token I am expressing the view of many parents in this city. My professional point of view in the field of research on the problems of drug addiction was presented by my Director and Colleague, Doctor G. H. Stevenson.

The evidence submitted by various individuals on the problems of drug addiction and your presence here represents great progress in society's attitude toward drug addiction, yet from the point of view of "prevention" not only of drug addiction but juvenile delinquency and maladaptation generally little was said. Without sound approach to the problems of juvenile delinquency of which drug addiction is only one facet the elaborate apparatus set up in the Opium and Narcotic Drug Statutes—highly desirable as it is from a humanitarian standpoint, cannot be too successful in curing or even curbing drug addiction.

Many members giving evidence to the Honourable members of the Senate referred frequently to four groups of addicts, namely, (1) members of the medical, dental, nursing and veterinary professions, (2) persons who are receiving medical treatment for relief of physiological illness, (3) criminal addicts, and (4) non-criminal addicts, that is, persons who are using drugs but who have not been brought to the attention of the police. From my own point of view there are only two groups: (1) persons who are receiving medical treatment for relief of physiological illness, and (2) addicts. Addicts in the latter classification are delinquents by definition. That is they are violators of statutes relating to illegal use of narcotics. This conclusion is a personal one and depends largely upon my definition of delinquency. I like to use the etymological definition of delinquency meaning, "to fall away". A delinquent is a person, who in his behaviour falls away from the customs and mores of the social organization. Such a broad definition would include any narcotic drug user in the category of a delinquent. This definition would support authorities on delinquency, such as Bronner, Heally, Burt and Gluecks.

Detailed comparisons were made by the above named authorities, between delinquents and non-delinquents. They concluded that the commonest and the most disastrous conditions leading to delinquency are those centered about the family life. The question of the effects of family relationship upon the sum total of home influence affecting one child in the family in one way and another child in the same family in a very different way has also been answered by these authorities. Briefly, a delinquent sibling is described as the one

\*Reprinted from Proceedings of the Special Committee on the Traffic in Narcotic Drugs in Canada



who at some stage of his development has been blocked in his needs for a satisfying relationship in the family.

All delinquents fall into a general pattern. They are emotionally disturbed people afraid to face life, unless it be a life of delinquency, and unable to make the adjustments necessary to normal living. They are all seeking to avoid the decisions and responsibilities of daily life. Some find in narcotics, the escape they desire. At the present time we place delinquents in custody to prevent further delinquency and to protect society from their criminal activities. At the expiration of their sentences we return these unfortunates to society, the same emotionally disturbed individuals they were before incarceration. In a short time most of them revert to the old pattern of life—crime or addiction and crime, and soon come again before the court for sentence. This process repeats itself time and time again. **Emphasis is still laid on protecting society not in understanding the individual.**

Those who are more sophisticated in understanding personality recognize that there are many factors contributing to delinquency and its various manifestations, including drug addiction, some of which are generally culturally—over-crowding, poor economic status, influence of the gang and exploitation by underworld barons who deliberately trap the weak. Some of these factors are very important, even though many of us were susceptible to the same factors, but the most **significant ones are those which centre around relationships.**

Relationships originate in the home—with the mother, father and siblings. In this setting we usually find the clue to the delinquents and delinquent addicts' underdeveloped social personality. The child who is unable to identify with his parents and siblings can hardly be expected to identify with the individuals in the society, to adjust to the society and the social customs of which their parents are a part. Children can only see the world through the eyes of their parents. Conflict with the parents subsequently brings about conflict with the society at large.

Among the forces that count most in determining whether or not a boy will be conditioned to antisocial behaviour is therefore the home atmosphere and especially the intimate emotional relationships of the parent and child and their psychological deposits in the personality and character of the boy. Whether we accept the point of view of common sense psychology, or the more penetrating psychoanalytic explanation in terms of unsatisfactory growth and relationships of id, ego and superego during the first few years of life, it is clear that in the home and in the parent-child relations are to be found the crucial roots of character which make for acceptable or unacceptable adjustment to the realities of life in society. **Little progress can be expected in the prevention of delinquency or drug addiction until family life is strengthened by a large-scale, continuous pervasive programme designed to bring to bear all the resources of mental hygiene, social work, education, and religious and ethical instruction upon the central issue.** We must break the vicious circle of character-damaging influence on children exerted by parents, **who are themselves the distorted personality products of adverse parental influences. (victims of circumstances beyond their control)** through intensive instruction of each generation of prospective parents in the



elements of mental hygiene and the requisites of happy and healthy family life. A tremendous multiplication of psychiatric, social, and other resources for improving the basic equipment of present and prospective parents for a wholesome parental role has become indispensable. Without this, we shall continue **the attempt to sweep back the mounting tides of delinquency and eventual manifestation of delinquency through addition with an outworn broom.**

There are many difficulties associated with treatment and prevention of juvenile delinquency. Nevertheless, social action should be concentrated in the areas in which specific attack on the problem of childhood maladjustment is possible and promising. To this end, society must do its most intensive work farther upstream in the life-span. At present, the greatest amount of time, thought, energy, and money is devoted to dealing with the finished product of long-operative antisocial processes. The professional and financial resources devoted to the early stages of childhood, to the education of youngsters in healthy and law-abiding self-management, and to the instruction of young parents in the mental hygiene of family life are petty compared with those poured into the social stream for the maintenance of criminal courts, prisons, and parole boards, when it is often too late for effective results. Society will continue to suffer from excessive delinquency and crime until it focuses much greater attention on childhood and family life.

I should like to express my strong belief that narcotic drug addiction is a symptom. It is a symptom of not one but of a variety of social maladies that appear in the various levels of our social structure—from the local paddler or the family which does not protect the right environment up to the international trade seeking illicit gain.

One may view drug addiction as one symptom of a deep seated social problem of larger cities—a problem which may manifest itself through other symptoms also, such as truancy, gang warfare and delinquency generally.

The basic problem for which there is no single term is the result of various deprivations suffered by children and their families in crowded, impoverished slum areas, in areas of racial conflict but basically in areas where the family and the community fail to provide the basic physical, emotional and educational needs of children. A major difficulty is that we are **inclined to take this basic social illness for granted as inevitable** but when one of its symptoms comes to our notice, such as an outbreak of gang warfare or drug addiction, there is a somewhat frenzied effort to deal with the presenting symptoms while continuing to ignor the basic problem.

Basic problems cannot be successfully attacked piecemeal. It requires combined operations by all—and a genuine co-operative and sustained effort based upon the best strategic planning available.

The whole political and social structure of the city is involved in this basic problem to some degree as is also that of the nation. If we are really talking about the roots of drug addiction we are talking about basic maladjustment in our social structure, especially in larger urban centres. We are attacking one of the most difficult problems that this society faces, and I believe the problem is going to be with us for many years if we direct our energies to the symptoms without touching upon the basic problem. There is no



doubt that new synthetics will replace opium. The opium supply of the world will be left to Mr. Luciano, so we shall have more problems.

I fully realize, Honourable Members of the Senate, that your term of reference is narcotic addiction. You may need to discount my presentation. But you have been referred to as a history-making body. Though I do not wish to minimize your importance, I do feel that the significance of such history may be minimized considerably unless you consider the basic problems underlying delinquency generally. **The focus must be on the home and community.**

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### PUBLIC RELATIONS COMMITTEE

The Canadian Medical Association has announced the appointment of a full-time Public Relations Officer effective July 1st last. Mr. Larry Holmes comes to the Association as assistant secretary in charge of public relations and brings with him a wide background of experience in public relations work, having received special university training in this field. Prior to and during his university course he was doing newspaper, radio and television work, all of which gave him a broad experience in all important facets of public relations work.

Mr. Holmes will accompany the Canadian Medical Association team to the Amherst meeting of the Nova Scotia Division and will be having a full day session with the public relations committee. More important he will appear officially before the general membership on the Panel on Public Relations which is a regular scheduled item on the programme.

FRED J. BARTON,

Chairman, Public Relations Committee.

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## Obituary

The Bulletin extends sincere sympathy to Doctors Leo and Saul Green of Halifax on the death of their mother, Mrs. Morris Green, who died on June 18th, after an illness of several months, at the age of 65; to Doctor Joseph A. McDonald of Glace Bay on the death of his father, Mr. John A. McDonald, who died at his home in Halifax on June 22nd, following a brief illness, at the age of 80, and to Doctor and Mrs. E. I. Glenister of Halifax on the death of their son Sub-Lieutenant J. M. Glenister, who was killed in a plane crash near Moose Jaw, Saskatchewan, on August 3rd, at the age of 19.



# Maritime Medical Care Incorporated

For some time the Board of Directors of Maritime Medical Care have been studying the question of securing suitable and adequate office space to house its corporation.

We now occupy two floors (the second and third) of a four storey building at 31 George Street, embracing a total of 3,000 square feet. Due to structural difficulties in the construction of this brick building, the arrangement of this office is bad, and due to the fact that nearly all the partitions in the building are built with brick it is impossible to re-arrange or re-design it.

With our continued growth during the past three years the situation has deteriorated further until to-day our staff are working under cramped and unsatisfactory conditions. Further expansion necessitates that we have additional office space, and the only alternative at the moment is to lease additional space on the fourth floor of our present premises. Your Board of Directors have investigated the possibility of securing space elsewhere in the city, but space in the quantity that we require is only available in three buildings and in each case the rent would be prohibitive. All three buildings rent at the rate of \$4.00 per square foot, and as we would require 4,000 square feet this would cost us \$16,000 per year.

With these facts in hand we have explored the possibility of erecting our own building. We have secured a hard and fast figure of \$179,000 from a contractor to erect us a suitable building. This was the lowest of five tenders received, the highest tender being \$11,000 above the aforementioned.

The figure mentioned above of \$179,000 does not include the cost of the site on which to erect the building, and it is estimated that such a site would cost up to \$40,000 if the building were to be erected in a desirable business district. This, of course, is necessary if we are to receive a good rate of rent.

This proposed building would be constructed of brick and steel and would be three storeys high. It would be 100 feet in length and 50 feet in width, and would render a total of 15,000 square feet. The top floor would be occupied by Maritime Medical Care and the two lower floors would be available for rental. The above estimate includes the complete building with elevator.

Maritime Medical Care has funds available to finance this project. The Corporation has at present \$193,000 in investments and a sizable bank balance to provide for the remainder. This money is not all surplus monies, but most of it is operating funds which have grown in size during the past four years.

Perhaps a word about our finances would be in order at this time. Subscriber premiums are all paid in advance. For example, the premiums for August are paid at August first. The doctors' accounts for August are not received until September and are paid in October, so at all times we have two months' subscription fees on hand, and rather than leave them lying dormant in the bank they have been invested in sound securities and are earning a favourable rate of interest.



In investing these funds in the building we would simply be changing our investment from stocks and bonds to a real asset. The estimated yearly operating cost of such a building would be as follows:

Taxes	\$ 8,000
Janitor	2,400
Insurance	1,300
Heat & Light	5,000
Repairs	2,000
Depreciation	5,000
	<hr/>
	\$23,700

The available space for rental would be approximately 11,000 square feet and at a rental of \$3.00 per square foot, which our real estate advisers tell us is a good figure for a new and modern office building, this would yield us an income of \$33,000 per year. You can readily see that the consummation of the proposed building would not only provide adequate housing for your Corporation, but would be an excellent investment as well. Along with being a good business proposition it is the opinion of the Board of Directors that we have no alternative but to erect our own quarters and, of course, there are other advantages that will accrue with the ownership of our own building. Along with furnishing us with satisfactory housing, not the least of them would be the excellent advertising the building itself would do. The financing of this building will not affect in any way our payments to physicians nor subscriber rates. It is simply reinvesting the money we have currently invested.

At the moment the Board of Directors are arranging to renew the lease on our present premises which expires January 1, 1956, on a short-term basis but with the understanding that we may sub-let it if necessary, and on securing financial approval for the erection of the building that a site be secured and construction undertaken.

This matter will be presented to you in detail at the annual meeting in Amherst in September, but it was the request of the Board of Directors that you be informed of the action which has been taken up to the present time. We solicit your support in furthering the cause of your medical plan in supporting this necessary, important and very worth-while project.

A. G. MacLEOD, M.D.,  
President.



# Programme

Tuesday, September 6, 1955

- 9.30 a.m. Executive Meeting.  
2.30 p.m. Executive Meeting.  
7.00 p.m. Registration

Wednesday, September 7, 1955

- 9.00 a.m. Registration.  
9.30 a.m. Welcome by Mr. Martin Kaufman, Mayor of Amherst.  
9.45 a.m. "Modern Concepts of Physical Medicine".  
Dr. G. J. H. Colwell, Halifax.  
Discussion to be opened by Dr. Garfield Moffatt, Springhill, N. S.  
10.30 a.m. "Hip Conditions from Infancy to Old Age".  
Dr. J. G. Petrie, Orthopaedic Surgeon, Royal Victoria Hospital,  
Montreal, P. Q.  
Discussion to be opened by Dr. G. M. Saunders, Amherst, N. S.  
11.30 a.m. Time out to visit Exhibits.  
12.00 noon "Some Observations on Prognosis and Treatment of Emergencies in the  
Aged".  
Dr. J. A. McDonald, Glace Bay, N. S.  
Discussion to be opened by Dr. David Drury, Amherst, N. S.  
1.00 p.m. Luncheon—Speaker Mr. N. S. Sanford.  
Editor Amherst Daily News and Sentinel.  
2.30 p.m. "The Comatose Patient".  
Dr. E. F. Brooks, St. Michael's Hospital, Toronto, Ont.  
Discussion to be opened by Dr. D. J. Tanning, Halifax, N. S.  
3.15 p.m. Time out to visit Exhibits.  
3.45 p.m. First Business Session.  
7.30 p.m. Second Business Session.  
To deal with the Report of the Committee on the Revision of the Con-  
stitution and By-Laws.  
10.00 p.m. Dance.

Thursday, September 8, 1955

- 9.00 a.m. Meeting of The Nova Scotia General Practitioners Society and The College  
of General Practice.  
10.45 a.m. "Vertigo".  
Dr. E. F. Brooks, St. Michael's Hospital, Toronto, Ont.  
Discussion to be opened by Dr. R. L. Aikens, Halifax, N. S.  
11.30 a.m. Time out to visit Exhibits.  
11.45 a.m. Panel Discussion on Public Relations.  
Guest Speaker Mr. L. W. Holmes, Assistant Secretary Public Relations,  
The Canadian Medical Association.  
1.00 p.m. Luncheon—Speaker, Dr. S. S. B. Gilder,  
Editor, Canadian Medical Association Journal.  
2.30 p.m. Golf Tournament—Dr. G. M. Saunders, Chairman of Committee.  
2.30 p.m. "Tendon Injuries of the Hand".  
Dr. J. S. Petrie, Royal Victoria Hospital, Montreal, P.Q.  
Discussion to be opened by Dr. G. W. Bethune, Halifax, N. S.  
3.15 p.m. Time out to visit Exhibits.  
3.30 p.m. Third Business Session.



- 6.30 p.m. Reception—Dr. D. M. Cochrane, The President of The Medical Society of Nova Scotia and Mrs. Cochrane.  
Dr. J. E. Park, The President of The Cumberland Medical Society and Mrs. Park.
- 7.30 p.m. Annual Dinner.  
Presidential Address, Dr. D. M. Cochrane.  
Guest Speaker, Dr. T. C. Routley, President of The Canadian Medical Association and President of The British Medical Association.  
**Friday, September 9, 1955**
- 9.00 a.m. Fourth Business Session.

### Ladies Programme

- Wednesday morning, September 7th Morning Coffee, Suite 317, Fort Cumberland Hotel.  
,, afternoon 2.30 p.m. Drive to Fort Beausejour and Museum followed by afternoon tea at Marshlands Inn, Sackville, N.B.
- Thursday morning, September 8th Morning Coffee, Suite 317, Fort Cumberland Hotel.  
1.00 p.m. Luncheon at Amherst Golf Club, with an address by Miss Helen A. MacDonald on Interior Decorating; followed by Golf and/or Bridge.

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### NOTICE RE MEDICAL CARE FOR RECIPIENTS UNDER THE PROVINCIAL WELFARE PLAN

A new contract has been drawn up between the Government of Nova Scotia and The Medical Society of Nova Scotia in regard to the recipients of Mothers Allowances and Blind Pensioners. Incorporated in this new contract is the stipulation that these people may receive medical care for any medical or surgical condition while in hospital for a maximum stay of twelve days. A maximum of \$25.00 will be paid to the physician for the care of medical conditions and a maximum of \$50.00 is provided for coverage of surgical care.

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### NOTICE RE ANNUAL MEETING

The Annual Meeting of The Medical Society of Nova Scotia will be held at the Fort Cumberland Hotel in Amherst September 6, 7, 8 and 9th. At this meeting a report will be given by the Chairman of the Committee who has been working on a revision of the Constitution and By-Laws in accordance with Article 13 of our present Constitution and By-Laws. The notice and report of this Committee is published in the May issue of the Nova Scotia Medical Bulletin. **All Members are asked to bring the May issue of the Medical Bulletin to this meeting.**

M. R. MACDONALD,  
Secretary.



# Society Meetings

## THE NOVA SCOTIA SOCIETY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY

A joint meeting of the New Brunswick and Nova Scotia Societies of Eye, Ear, Nose, and Throat specialists was held at Moncton, New Brunswick, on Monday, May ninth, 1955, at the Moncton City Hospital.

The morning session opened with presentation of clinical cases at the Out-patient department by Doctors Desmond, Ross, Bourgois, and Nadeau, of Moncton, and Dr. Hayes of Saint John. These consisted of Paralysis of Right Internal Rectus—Retrolental Fibroplasia—Retino Blastoma with Involvement of Optic Nerve—Unilateral Nystagmus—Melanoma of Retina near the Disk—Bilateral Ptosis—Congenital Laryngeal Web (Stenosis)—Nasal Polyp with Lympho Sarcoma—Arterio Sclerotic Retinitis—Malignant Melanoma—Angioma with Retinal Detachment.

There was considerable discussion of these cases which were unusual and most interesting.

Dr. Desmond presided at the morning meeting following the clinical presentations. Dr. A. Ross showed two films—Plastic Lid Reconstruction and Plastic Repair of the Orbit. These were loaned through the courtesy of Dr. Cole of New York.

Doctors Gaulton and Hayes presented several interesting case histories—

(1) A male child, 3 years old, quite well until a month before being seen, had some nasal bleeding from both nares. Examination showed facial paralysis, bulging ear drums, and no evidence of an expanding cranial lesion. X-ray showed cloudiness of the mastoid on the left side. Operation was carried out. The area showed infection and swelling appeared to be behind the left mastoid which was very thin. The lump was quite hard and raised. The general condition deteriorated and there was difficulty in breathing and death occurred in the early afternoon. Tissue of the gland and bone showed embryonal sarcoma; the primary growth in the petrous bone and the gland was secondary, sinus and dura were uncovered and found normal.

(2) Acute Laryngo-tracheitis—a child  $2\frac{1}{2}$  years old. Tracheotomy was carried out and the child did well at first but later showed signs of bronchopneumonia. A bronchoscopic was done through the tracheotomy and cleaned out the discharge—pneumothorax developed—the air was removed and condition improved. Two days later the case developed emphysema in the neck. This gradually cleared up and the child finally recovered.

(3) Child, nine months old, with history of two weeks increased difficulty in breathing and was now almost moribund. X-ray showed a retro-pharyngeal abscess due to a thumb tack. Tracheotomy was performed, the thumb tack removed, the abscess opened and drained. The child was given intravenous feedings and a Levine tube was passed. The child died. Post mortem showed broncho-pneumonia with congestion and a large retro-pharyngeal abscess.

(4) Lady—aged 54 years. History of failing vision in the left eye and headaches. Was sent to Montreal to the Department of Neuro Surgery for



investigation. She had some hypertension, left pupil larger than right, pallor of the disk. Fingers at two feet. X-ray showed a sphenoid mass, nothing in the naso-pharynx. Field defect in the left lower temporal region. The neuro-surgeon did feel an operation was advisable.

(5) A child at the age of four years swallowed lye and persistent dilatation of the oesophagus was carried out for over twenty years. The patient was now a graduate nurse and was operated on at Boston. The affected area was excised and the stomach was brought up to replace this portion with very satisfactory results and she is doing well.

There was considerable discussion of these cases by the various members.

The meeting then adjourned for luncheon at Dunham's, as arranged by the New Brunswick committee.

The afternoon session opened with a short meeting of the Nova Scotia Society, with Dr. L. G. Holland, of Halifax, Vice-President presiding. An application for membership was read from Dr. T. Tenderenda, of Dartmouth. This was recommended by the executive and was regularly moved and seconded and passed by the meeting.

Letters were read from the families of the late Dr. E. F. J. Dunlop and Dr. George Gandier, conveying their thanks and appreciation to the members of the Society for their sympathy in their bereavements.

A preliminary notice of the Sixth International Congress of Otolaryngology, to be held in 1957 at Washington, was read. An application for membership in the International Society of Eye, Ear, Nose, and Throat secretaries, was received and placed before the membership. It was regularly moved and seconded that our Society should become a member. Dr. R. T. Hayes then made the motion that the New Brunswick Society would like to contribute this membership fee as an expression of appreciation of the fellowship and friendliness of the two societies.

A very informative letter with excerpts from a recent editorial by Dr. Vail in the American Journal of Ophthalmology was read. No action was considered necessary at the present time. The business meeting then adjourned.

The scientific portion began with the presentation of a paper on Uveitis, by Dr. Nadeau, of Moncton. Dr. Nadeau discussed the subject under the general terms, Granulomatous and Non-granulomatous—giving symptoms, causation, general prognosis, and progress and treatment. This paper was well prepared and must have entailed much work and study in gathering all the varied information which was presented. Discussion was opened by Dr. Glenister, and comments were made by Doctors McKean, Hayes, and Nadeau. Dr. Bourgeois, of Moncton, presented the next paper—The Non-Surgical Treatment of Cataracts. He reviewed the literature from this viewpoint and discussed many of the preparations which had been used and some which seemed to give some help. He mentioned a preparation called Sonulet, which he felt had some merit in producing some relief of symptoms and helping



the morale of certain individuals. He spoke of the use of heat, foreign protein, iodides, vitamin-B and Vitamin C, the use of lens material injected into the body and the lens itself.

There was general discussion and questions by Dr. Pullins, Dr. Glenister, and Dr. Bourgeois.

Dr. Ross Wright, of Fredericton, presented a paper "Some Problems of Diagnosis."

1. Male, fifty years old. Swelling in glands of the neck. Excised the glands February, 1955. Biopsy showed carcinoma of the gland. Examined again March, 1955 large mass found in the naso-pharynx—Lympho Epithelioma of the pharynx.

2. Man, aged 81 years. Difficulty in swallowing and breathing for the past three months. Unable to demonstrate any gross pathology—I feel this is a case of carcinoma of the larynx—but where is the growth?

Following these papers there was a general discussion of economic problems, particularly as affecting the New Brunswick Medical Group at the present time.

After considerable discussion and motions, the New Brunswick group formed a Committee to discuss the problems as they affected various areas and to have this Committee try and finalize a suitable report to meet the situation.

The Meeting then adjourned, the time and place of our next joint meeting to be decided and arranged by the Executive.

At a recent Meeting of the Executive, it was decided to hold the Annual Meeting of the Nova Scotia Society of Ophthalmology and Otolaryngology, in conjunction with the next joint Meeting of the New Brunswick and Nova Scotia Eye, Ear, Nose and Throat Societies. The joint Meeting has been set for Monday, November 14th, 1955, at Halifax, N. S. Details will be announced to the Members at a later date.

E. G. GLENISTER, M.D.,  
Secretary-Treasurer.



## Personal Interest Notes

The marriage took place quietly in Halifax on July 4th of Mrs. Nellie Colwell Taylor and Doctor Lewis M. Morton of Yarmouth, following which they left on a motor trip to Richelieu Manor, Murray Bay. They will reside in Yarmouth.

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Doctor Frank G. Bell, Dal. 1955, is now associated in practice with Doctors Leo and Saul Green in Halifax.

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Doctor Lewis P. Churchill, who has been practising in Shelburne for forty-four years, has now retired. Doctor Churchill graduated from McGill in 1909 and interned at the Victoria General Hospital in Halifax. He then spent a year in New Germany and returned to Shelburne County, his home, to practise medicine. He spent the years 1916 to 1918 in Flanders Fields and was awarded the Military Cross for bravery, shown in the face of the enemy. The presentation was made at Buckingham Palace by the late King George V. Returning home he resumed his practice until War II. He was in charge of the Naval Hospital at Shelburne and was stationed at intervals at the Yarmouth and Sydney hospitals. At the close of the conflict Major Churchill returned to his practice.

Doctor Donald R. Campbell, Dal. 1955, son of the late Doctor D. A. Campbell of Bridgewater, has succeeded Doctor Churchill.

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The Bulletin extends congratulations to Doctor and Mrs. Milton W. O'Brien of Lockeport on the birth of a daughter, Monica Fern, on July 1st, and to Doctor and Mrs. C. Donald Vair of Dartmouth on the birth of a daughter on July 31st.

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Doctor and Mrs. C. C. Stoddard of Halifax attended the wedding of Mrs. Stoddard's brother, Raymond Tays, in Montreal, in July.

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Doctor Gerald Belliveau, son of Doctor and Mrs. P. E. Belliveau of Meteghan, who graduated in medicine from Laval University in 1954, and has been doing post-graduate work at St. Joseph's Hospital, Saint John, N. B. has started general practice in Tusket.

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Doctor Freeman B. Webber, Dal. 1949, who has been doing post-graduate work in Massachusetts and New York, has opened a practice in Liverpool.

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Doctor Hartley W. Kirkpatrick, who has been practising in Halifax, will open an office in Wolfville the first of September.



Doctor D. Bruce Keddy, Dal. 1951, who has been practising in Mahone Bay, has left for Cleveland, Ohio, to take post-graduate work. Mrs. Keddy and three daughters, who are vacationing at Mason's Point, will join him in the fall.

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Doctor G. J. H. Colwell of Halifax attended the convention of Canadian Association of Physical Medicine and Rehabilitation in Montreal in June.

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Seventeen medical experts were honoured in ceremonies in Toronto at the 88th annual meeting of The Canadian Medical Association. Three British and three Canadian doctors were awarded honorary doctorates of letters from the University of Toronto and 11 Canadian doctors were named senior members of The Canadian Medical Association.

Central figure in the campus ceremony was Doctor T. Clarence Routley of Toronto, first dual president of the British and Medical Association who received his degree from the University forty years ago.

Among those named to senior membership was Doctor Walter L. Muir of Halifax.

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Doctor and Mrs. D. James Sieniewicz of Montreal have been visiting Doctor Sieniewicz's sister, Mrs. Cyril M. Kincaide and Doctor Kincaide at Boulderwood, Halifax County and his parents, Doctor and Mrs. T. M. Sieniewicz in Halifax. Doctor Sieniewicz graduated from Dalhousie Medical School in 1950 and is now attached to the Radiology staff of Montreal General Hospital.

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Doctor and Mrs. K. A. MacKenzie of Halifax, enjoyed a month and a half at Seabreeze Hotel, Queensland, during July and August.

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Doctor and Mrs. George H. Murphy of Winchester, Virginia visited his parents, Doctor and Mrs. G. H. Murphy of Halifax in August. Doctor Murphy graduated from Dalhousie Medical School in 1940 and is now head of the Pathological Department of the Memorial Hospital in Winchester.

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Doctor Evelyn Rogers of Utica, New York, visited her sister and brother-in-law, Doctor and S. H. Keshen of Halifax in August.

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Doctor Margaret E. B. Gosse wife of Doctor Norman H. Gosse of Halifax, was appointed the only woman chairman of a Canadian Medical Association Committee at the Annual Meeting in Toronto in June. The new special committee on international relations was set up to deal with matters arising out of activities of the World Medical Association.

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We are sorry to learn that Doctor M. S. MacDonald of Dartmouth, has been recently ill in the Victoria General Hospital, but he is now making satisfactory progress toward recovery.