doubt about the importance of psychological upset in causing obesity there is none that obesity causes psychological upset. The fat child brought to the outpatient clinic will certainly have a psychological overlay, having suffered from the taunts of fellow children ("Fatty," "Tubby," "Fatso"). The fatter he grows the more people will expect him to eat. Eventually he may become too fat or too sensitive to go out and play in a normal fashion, thereby reducing energy expenditure and making matters worse.

The problem of treating such children has been brought into sharp relief by the recent paper from J. Lorber.[4] This is an excellent study of the relative merits of three forms of treatment—namely, by amphetamine, by phentermine, and by special diet with a blank control capsule. Once again he showed that any form of treatment will produce a rapid improvement in some children, followed by a progressive falling off in the efficiency of treatment with time. Better results were achieved with the drugs, and particularly with amphetamine. Though Lorber stresses that no addiction was detected after treatment, the general use of a drug of potential addiction for such a common and long-lasting condition as obesity cannot be recommended. Moreover, it is wise always to avoid the implication that a "pill" is the answer. Three important factors are the age of the child, whether or not the child as distinct from his parents wishes to co-operate, and the enthusiasm and persistence of the doctor or dietitian supervising the diet. A fourth factor paramount in paediatric practice is the mother and her understanding of the situation.

Obesity in an infant is undesirable and prevention is best. The fault usually lies with the excessive addition of cereal foods to the infant's diet from an early age. They replace the much bigger proportion of protein contained in milk with a high intake of carbohydrate. Successive "baby shows" have encouraged mothers to make babies fatter and fatter, like so many marrows, and perhaps some welfare clinics have laid too much stress on weight gain.

The young child who is fat will not wish to co-operate, since the diet demanded will include a reduction in his intake of bread, potatoes, cakes, biscuits, lemonade, puddings, and sweets. Many people would feel that treating a child before the age of 5 is unprofitable. The best hope of success is to persuade the child's mother to alter the dietary habit of the whole family towards a lower-calorie intake, higher in protein and lower in carbohydrate.

In the older child the problem is entirely different. Psychological reassurance, encouragement, improved diet, and more exercise are the most effectual lines. Few children wish to remain fat as adolescence approaches. The pubescent girl is becoming interested in her eventual shape, and Bessie Bunter is not the ideal. The boy should be involved in regular sustained athletic activity including as wide a range of movement as possible. The confidence of the older child won, his co-operation in achieving satisfactory results is often possible, especially if obesity develops in the prepubertal period. A diet less than 1,200 calories with a protein intake of perhaps 60 g. per day and a low carbohydrate content is required. Diet sheets should be kept to hand, printed in language which the patient can understand, and referring to foods which the patient and his parents are likely to eat. Now is the time to record the weight regularly, to show the child his or her weight loss, or at least the slower increase in weight gained. When weight begins to be lost, and as the encouraged child continues to grow and become thinner, co-operation can be excellent and improvement may be rapid. Sometimes it may be necessary to bring the child into hospital away from the mother's cooking and the family environment to show that losing weight is in fact possible. Once again it is highly desirable to change the long-term dietary pattern of the whole family if they are living on excessive carbohydrate. Only the mother can do this. It is important that the same person should see the child regularly and help with encouragement and not ridicule or bully. Exercise should be taken every day and for at least one hour rather than a short dramatic burst occasionally.

In short, it would seem that simple obesity in childhood occurs because of undefined metabolic factors superimposed on a diet which is probably rather similar to that of many normal children. For young children a dietary regimen has little hope of success unless the mother and indeed the family change their dietary habits too. For the older children sympathy, simple explanations, and continued encouragement together with a low-calorie and low-carbohydrate diet hold the prospect of considerable success. The general approach to the problem should be to bring about a permanent alteration in dietary habit. It is worth recalling that S. Abraham and M. Nordsieck[6] found that 80% or grossly overweight boys and girls became overweight as adults and that the problem does not end at puberty. Exercise is helpful, particularly for fat girls. Despite the temporary advantage which drug therapy offers, it is not a long-term solution. Thyroid should not be given, and amphetamine should be given sparingly and only perhaps to help overcome depression. It is worth noting that phenmetrazine has been banned in Sweden because of the high incidence of addiction.

Viruses and Chronic Bronchitis

This winter many practitioners will be called to treat patients with chronic bronchitis whose condition has deteriorated. The causes of this disease are complex. Some, such as smoking and aerial pollution, are unconnected with infection, yet there is often a clinical impression that a sudden deterioration in the patient's condition may be due to a virus infection. For example, a child in the family may have a mild cold, which is apparently passed on to the patient and makes him ill. Again, during an epidemic of influenza several patients may be admitted to one ward because of an exacerbation of obstruction to their airway.

A specific diagnosis of virus infection cannot be made by clinical observation. Sputum and specimens of nasal and throat secretions must be tested in several different tissue cultures, and paired sera must be examined for rising antibody titres against certain viruses. A particularly well-conducted study of this sort was reported recently in this journal by Margaret B. Eadie, E. J. Stott, and N. R. Grist.[1] In the first place the authors clearly described the clinical status of the patients, using standards adopted by Medical Research Council workers. Fifteen patients who were living at home were studied, mostly for over two years; in addition their families were observed clinically and tested for virus infections. Virus infection was detected in 21% of 75 ill-

[1] Mayer, J., in *Current Paediatric Therapy, 1966–7*, 1966, ed. S. S. Gellis and B. M. Kagan, p. 2. Philadelphia and London.
[3] Steiner, M. M., *Pediatr. clin. N. Amer.*, 1955, **2**, 553.
[4] Lloyd, J. K., Wolff, O. H., and Whelen, W. S., *Brit. med. J.*, 1961, **2**, 145.
[4] Lorber, J., *Arch. Dis. Childh.*, 1966, **41**, 309.
[5] See Wolff, O. H., in report at p. 1003.
[6] Abraham, S., and Nordsieck, M., *Publ. Hlth Rep. (Wash.)*, 1960, **75**, 263.

nesses in the patients with bronchitis. Most of these illnesses were infections with rhinoviruses, which were isolated from 23% of 47 illnesses in which the chest was infected and from almost half of those in which symptoms of a "cold" were preceded by or followed by an exacerbation. Rhinoviruses were isolated from only 1 case out of 28 of other clinical types of illnesses. One strain of parainfluenza type 1 virus was isolated, and there was serological evidence of infection with influenza A and C. Virus was isolated four times in 19 respiratory illnesses affecting the families of these patients. As rhinoviruses are isolated from only about 2% of normal healthy adults, it is probable that they were found more often in these patients when they were ill than when they were well, but this remains only a probability.

These observations are consistent with earlier reports that influenza A or respiratory syncytial virus or parainfluenza virus infection can be detected in a small proportion of patients with exacerbations of chronic bronchitis.[2-4] In previous studies rhinoviruses were either not tested for at all or may not have been isolated for technical reasons. The study by Professor Grist and his colleagues indicates that rhinoviruses may be more important than any of the viruses previously detected in bronchitis. It also suggests that the mixture of viruses infecting patients with chronic bronchitis is very similar to that which causes the common mild respiratory illnesses of normal people. The reason for the different clinical responses of the illness of bronchitic patients probably lies in the "soil," the abnormal respiratory tract, rather than in the "seed," the infecting organism.

It may be argued that rhinoviruses can infect only the upper respiratory tract and cannot cause lower respiratory infection even in a patient with chronic bronchitis. However, there is experimental evidence that rhinoviruses which cause colds in volunteers when given as nasal drops can cause bronchitis when introduced experimentally into the lower respiratory tract of man.[5] And it may be that the bronchitic patient cannot prevent the virus from entering the lower respiratory tract, possibly because he often breathes through his mouth and so bypasses the nasal air filter. On the other hand, cough is a fairly common symptom in patients infected with rhinoviruses, some of whom may be diagnosed as having acute bronchitis,[6 7] and is less common in colds due to one of the newly discovered common cold viruses.[8] Therefore it is possible that rhinoviruses have a greater tendency than some of the other viruses to attack the bronchial epithelium.

Do these results throw light on the question whether bacterial infection causes exacerbations of chronic bronchitis? It should be noted that from many patients viruses were not isolated. Possibly their illnesses were due to bacterial infection. Again, it is possible that the damage to a diseased mucous membrane induced by rhinovirus infection may upset a precarious balance and allow growth of pathogenic bacteria such as pneumococci and haemophilus. In any case it is probable that by the time a patient becomes severely ill the rhinovirus infection is largely over and his distress is due to some subsequent morphological or functional change. There is not enough evidence here to justify any alteration in the present management of the disease. But these studies are interesting and might well be extended further to include other groups of patients and possibly other micro-organisms such as mycoplasmas.

[1] Eadie, M. B., Stott, E. J., and Grist, N. R., *Brit. med. J.*, 1966, 2, 671.
[2] Stuart-Harris, C. H., Pownall, M., Scothorne, C. M., and Franks, Z., *Quart. J. Med.*, 1953, 22, 121.
[3] Stark, J. E., Heath, R. B., and Curwen, M. P., *Thorax*, 1965, 20, 124.
[4] Carilli, A. D., Gohd, R. S., and Gordon, W., *New Engl. J. Med.*, 1964, 270, 123.
[5] Cate, T. R., Couch, R. B., Fleet, W. F., Griffith, W. R., Gerone, P. J., and Knight, V., *Amer. J. Epidemiol.*, 1965, 81, 95.
[6] M.R.C. Working Party, *Brit. med. J.*, 1965, 2, 319.
[7] Ketler, A., Hamparian, V. V., and Hilleman, M. R., *Proc. Soc. exp. Biol. (N.Y.)*, 1962, 110, 821.
[8] Tyrrell, D. A. J., and Bynoe, M. L., *Brit. med. J.*, 1965, 1, 1467.

Freud in English

The publication this month of the last volume of text (there is an index volume still to come) completes the Standard Edition, in English, of the psychological works of Sigmund Freud.[1] In his preface to the series the translator and general editor, Mr. James Strachey, gives a short historical account of the project. The decision to proceed with this monumental enterprise was taken more than 15 years ago, when, largely through the initiative of Dr. John Murray, of Boston, advance subscriptions were obtained from America for 500 sets of the proposed edition. The first volume to reach the presses (Volume IV) was published in 1953, and a further twenty-two have appeared at regular intervals in the years following. The last of the series (Volume I) deals with the writings of the earliest period (1886–99), and contains a fresh translation of the important *Project for a Scientific Psychology*, together with much material only recently brought to light and previously untranslated. This period, which saw the deflection of Freud's main field of interest from neurology and neuropathology to psychology, is one of particular fascination to medical readers. The turning-point seems to have come with his visit to the Hospice de la Salpêtrière from October 1885 to March 1886, where he came under the influence of Jean-Martin Charcot, and began his studies of hysterical and hypnotic phenomena. The present volume opens, appropriately, with Freud's *Report on my Studies in Paris and Berlin*, which he wrote on his return to Vienna in 1886. The report has been disinterred from the archives of Vienna University, and is here for the first time made generally available.

For the translator, as Mr. Stratchey points out, Freud's writings present a difficult problem. Besides the accurate rendering of his meaning, there is the question of style. Thomas Mann has said of *Totem and Taboo* that it is "in its structure and literary form a masterpiece and allied to all the great examples of German essay-writing." It is perhaps not the least of Mr. Strachey's achievements that he has succeeded in making this claim intelligible to the English reader. The textual difficulties also should not be underrated. Many of his books were extensively revised by Freud for later editions, and no attempt has been made in the German collected works to keep track of the development in his thought which these changes represent. In addition, the *Gesammelte Werke*,[2] printed in England during the second world war, were unrevised and often incomplete, so that doubtful points have made it necessary in many cases to check the printed German text against the original. In all the writings published after Freud's death the translation has been made direct from the manuscript. That this was not always easy may be seen from the example of the *Project for a Scientific Psychology*, where the manuscript, which is written in Gothic script and abounds in technical and personal

[1] *The Standard Edition of the Complete Psychological Works of Sigmund Freud*, translated from the German under the General Editorship of James Strachey, 24 volumes. London, from 1953.
[2] Freud, S., *Gesammelte Werke*, 18 volumes. London, from 1940.