BABY ‘FRUITARIANS.’
(By kind permission of Miss Muriel Payne, Superintendent,
Infant Welfare Centre, Sydenham.)

One of the loudest cries of the day is “Save the Babies!” Out of every evil comes some good, and certainly the war has at least wakened up the nation to this great responsibility.

In connection with the Sydenham Infant Welfare Centre, we started eighteen months ago a small Infant Hospital of twelve cots. Only marasmic babies and those suffering from diseases of nutrition are admitted. The subject of diet is most carefully studied, and a good number of infants recover on carefully modified milk and cream or whey and cream, and ordinary warmth and nursing attention.

But there are a certain number of wasting babies who seem to react to no treatment, and we had a number of these of the very worst type to deal with. Some had been in other hospitals, and all had had previous treatment before coming into the Hostel.

One day our medical officer decided to try these obstinate cases with fruit-juice. We had one baby who had been in for four months, she weighed 6½ pounds, and was seven and three-quarter months old—a perfect little skeleton. She had a bad discharge from both ears, and raw buttocks which nothing would heal. The child was practically at its last gasp when the M. O. put her on fruit-juice only. She was given oranges, apples, and rhubarb-juice, ad lib. in her bottle. In the first twenty-four hours she demolished thirteen oranges, eight apples and three sticks of rhubarb—24 ounces of juice in all.

The result was extraordinary: she stopped her continual whine and slept for hours. The discharge from her ears practically stopped, and her buttocks absolutely healed. She, however, lost 4 ounces in weight. In the second twenty-four hours she took 20 ounces of fruit-juice, seemed very comfortable, and slept, but towards night became rather cold (temperature 96.2 degrees), and the M. O. decided to give her one bottle of modified milk. This improved matters, and from that time she went straight ahead, gaining weight daily, enjoying bottles of juice ad lib. and a gradual increase of milk bottles week by week. At the end of five weeks her daily quantity of food was—pure milk, 5 ounces; fruit-juice, from 12 to 20 ounces. At the end of ten weeks she was digesting 13 ounces of pure milk in modified form, and took from 4 to 7 ounces of juice daily. She weighed 10 pounds, and, instead of being a skeleton, was a dear, fat, laughing little girl.

Another case, Baby A, aged seven months, weight 9 pounds, had been quite a waster from birth, and had chronic enteritis and acute symptoms of scurvy rickets. We had had him in the Hostel for four months, with very little improvement, only gaining 1½ pounds in that time. He was ordered the same treatment, and went straight ahead, with a loss in weight of only 2 ounces in the second twenty-four hours. He was kept on fruit-juice only for
three days, and then milk bottles were gradually worked in. At the end of
eight weeks he had gained 3 pounds, and is now a dear little boy of over 16
pounds. All symptoms of scurvy rickets (tenderness in the joints, etc.),
disappeared within forty-eight hours, and have never returned.

Baby T, four months old, weight 6 pounds 15 ounces, had wasted from
birth. He was found in the district, having been in convulsions for three
days. His private doctor had given up all hope of recovery. He was
admitted to the Hostel, and given 4 ounces of fruit-juice by nasal tube. The
convulsions stopped within two hours. He was kept on fruit-juice for three
days, and gained weight all the time. On the fourth day he started with a
bottle of Peptonized Trumilk Proteid 0·95, sugar 6·5, fat 0·5. This was
gradually increased in quantity and strength, and he went straight ahead, in
seven weeks gaining 3 pounds 1 ounce. In this case on the eighteenth day of
treatment the baby refused the fruit-juice, but afterwards took it again in
varying quantities of 4 to 16 ounces daily.

Baby P, a dyspeptic, and wasted for six weeks, a little skeleton weighing
5 pounds 8 ounces, was admitted very ill. He had weighed 7 pounds 8 ounces
at birth, and had cried day and night since ten days old. Treatment ordered
was fruit-juice, and the baby took 6 ounces straight off, and slept seven hours.
At the end of that time he took another 6 ounces, and slept 6 hours again. He
seemed very happy, and gained daily after the first drop in weight of 2 ounces
at the end of the first twenty-four hours; he was kept on fruit-juice only for
six days. This was during the experimental stage of the treatment and proved
too long. Alarming symptoms of collapse set in, and a loss of 5 ounces in
weight. A few bottles of modified milk were at once given, and the child
rapidly progressed. This child (and others when kept on fruit-juice too long)
developed a superficial ulceration of the mucous membrane of the mouth,
caused by the acidity of the fruit.

Washing the mouth out with solution of bicarbonate of soda, teaspoonful
to the pint, soon counteracted this, and it did not seem to give much discomfort
to the baby. This baby, however, had a great preference for strawberry,
melon, cherry and less acid-tasting fruits. In fact, strawberry juice had to
be limited in quantity, as he proved so particularly greedy about it. At the
end of seven weeks he weighed 7 pounds 12 ounces, a gain of 24½ pounds.

To show how rapidly the babies react to fruit-juice, some months later
this same baby, who was then on an ordinary diet of modified milk, developed
a temperature of 101·6 degrees, vomiting and diarrhea. He was given straw-
berry and melon juice only, and all bad symptoms ceased within twenty-four
hours. A rather expensive treatment though, as he took the juice of 2 pounds
of strawberries and a quarter of a melon in thirty-six hours.

Lately we have been able to prove that fruit-juice has an extraordinary
effect on convulsions in infants. A nasal feed of F (4 ounces of fruit-juice)
has completely stopped convulsions within 1 to 2 hours, when other treatments
have completely failed. This has now been proved in a large number of cases.
One, a baby boy of seven weeks, was admitted with acute enteritis. He had
been in convulsions twenty-four hours; temperature 103 degrees. Ordinary
methods of treatment were tried (rectal lavage, mustard bath, etc.), and after
four hours with no success, a nasal feed of fruit-juice, 2½ ounces, was given.
The convulsions ceased within an hour. Ordinary treatment for acute enteritis
was then reverted to. Another infant was admitted suffering with acute
enteritis of seven days' duration and bad convulsions. Ordinary treatment
was given. The temperature rose higher and higher, and the child was
obviously getting rapidly worse. A nasal feed of fruit-juice, 4 ounces, was
given, and the convulsions stopped within one and a half hours, rapid
improvement setting in for two days. This child, however, later had a sudden
relapse and died.

The conclusion that our Medical Officer (Dr. H. B. Gladstone) has drawn
from these experiments I quote from an article of his in the November number
of the Practitioner. He says:—"Fruit-juice can be taken to the extent
of a pint daily, with immediate benefit to a dyspeptic-atrophic infant under
one or two years of age. A carefully selected predigested food, low in albumin
and fat and high in sugar, will then be both digested and absorbed, and result
in gain of weight. At first a loss of weight must be expected, but by the end
of the first week this is usually regained. Unless the juice is followed by a
diet scientifically adapted to a weak digestion it does no permanent good
whatever. The juice no doubt acts partly on account of its acid reaction,
rendering the bowels unsuitable for germs growing in an alkaline medium. It
has a tonic cleansing effect on the mucous membrane of the digestive tract,
and is a diuretic, diaphoretic, and general alterative. It supplies an attrac-
tive drink, enjoyed by all babies, containing 10 per cent. of soluble carbo-
hydrate food, removes the irritability and restlessness of the child, promotes
quiet sleep, and renders the digestive organs able to digest and absorb a
light diet.

"Whilst oranges were available, the juice was made of two parts of orange-
juice to one of apple-juice, diluted with one-quarter the quantity of water.
The apple-juice was obtained by shredding apples on a vegetable grater and
expressing the juice by means of a fruit press (obtainable at the Civil Service
Stores for 1½). Since oranges have become unobtainable, melons and apple-
juice have been used with somewhat less good results. Strawberry, cherry,
raspberry, and banana juices have been taken and enjoyed by the babies, and
did not produce any bad effects; and it is probable that any fruit-juice avail-
able would succeed, provided the acid fruits were not used in too large a propor-
tion, and that, when oranges are out of season, it will be found advisable to
add a small quantity of lemon-juice to the sweeter fruit-juices to supply the
necessary acidity. Experiments with fruit-juice are being continued at the
Hostel and this paper is intended merely to introduce what may prove to be a
valuable remedy in the treatment of chronic dyspepsia, chronic diarrhoea, and
atrophy in infants."

I have to thank Dr. H. B. Gladstone for allowing me to contribute
this article, with his cases and their treatment, to the "League" magazine.