

STATISTICAL SURVEY OF MEASUREMENTS OF WEIGHT, LENGTH, CIRCUMFERENCE OF HEAD AND CHEST

BY

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A statistical survey of 2,000 newborn live infants born in the Women and Children Hospital, Madras, has been carried out as regards weight, length and circumference of the head and chest.

1. The babies were divided into two groups: (i) The mature group—where the duration of pregnancy was 38 weeks and above. (ii) The premature group—where the duration of pregnancy was below 38 weeks. The average weight, length, occipito-frontal circumference and circumference of chest have been calculated and found to be as shown in the table.

weight to the length of the baby. The babies were divided into 3 groups (a) weighing less than 5½ lbs., (b) weighing between 5½-7 lbs. (c) over 7 lbs. The average length of the various groups is shown in the table.

Weight below	Weight between	Weight above
5½ lbs.	5½-7 lbs.	7 lbs.
17.2	18.7	19.5

There is a definite relationship between birth weight and the length of the baby. The greater the birth weight the greater the length.

3. The birth weights of babies born

Maturity in weeks	Average weight	Average length	Average O. F. C.	Average Chest C.
38 & 40 ..	6.3 lbs.	18.8"	13.4"	12.7"
Below 38 weeks ..	5.5 ..	16.8"	12.5"	11.7"

The average birth weight for the mature group is 0.8 lbs. more than that for the premature group. The length, occipito-frontal circumference and chest circumference are greater in the mature than in the premature group.

2. An attempt has been made to determine the relationship of birth

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to mothers who were vegetarians and mothers who were non-vegetarians have been analysed and the average birth weight determined among 500 mothers. The ratio of vegetarian to non-vegetarians was 14 per cent and 86 per cent respectively. The table shows the respective average birth weights.

Vegetarian	Non-vegetarian
6.1	6.25

The average birth weight for the

non-vegetarian group is higher than that for the vegetarian group. It must be pointed out that the women who called themselves non-vegetarians were people who partook of mostly vegetarian food with occasional non-vegetarian food, because of the high cost of non-vegetarian food.

4. The average loss in weight in the first 24 hours has been determined in 500 cases. The weight of the baby is taken exactly 24 hours after birth and on the same weighing machine as the one on which the birth weight was taken. The average loss in weight was found to be 7.1 ounces.

5. The relationship of the birth weight between male and female babies has been determined in 500 cases and has been found to be as follows.

Male	Female
6.25 lbs.	5.6 lbs.

It is thus seen that there is a lower birth weight for the female babies than the male babies.

Further investigations as regards the influence of parity on birth weight and the economic status of the mother to birth weight are being carried out.