

ੴ ਸ੍ਰੀ ਗੁਰਗ੍ਰੰਥ ਸਾਹਿਬ ਜੀ ਕੀ ਫਤਹ ॥

HUMAN HAIR

factory of vital energy

By

Dr. CHANDA SINGH

Director :

The Human Hair Research Institute,
Kot Kapura (Punjab.)

Published by :--

SHIROMANI GURDWARA PARBANDHAK COMMITTEE
AMRITSAR.

Price—40 Paise

its root in the skin, grows to a certain extent specific to the region to which it belongs, lives for a certain period and then falls off. It is then replaced by a fresh growth from the same root, and undergoes the same process of the life cycle. From birth till death of men, several generations of each hair thus follow one another in their turn.

The specific physiological function of the hair, so far as the present knowledge goes, is to ingest and assimilate solar radiations. Each hair is an accumulation of pigmented (coloured) cells. This pigment is of the melanin type which has got the special affinity for the ultra-violet rays of the sun. The solar radiations cause important photo-synthetic chemical developments in the hair cells. Fatty secretion of the skin feeds the hair with the pre-cursor chemical of vitamin 'D' which is decomposed and re-composed in an assimilable form, in the hair cells with the help of the solar rays. Vitamin 'D' is very essential for the growth, development and integrity of all tissues and organs of the body. Its physiology is too well known to need and discussion here.

For the physiological role that the fatty secretion of the skin and the hair play in the development of vitamin 'D' observation of Dr. Hou are very interesting (Hou—H. C. Studies on the glandula uropygealis of birds, Chinese J. Physiol... 345—80, 1928; relation of preen glands of birds to rickets, *ibid.*, 3 171—82. 1929 relation of preen-glands to rickets. III. Site of activation during irradiation, *ibid.*, 5 11—18 1931). Dr. Hou conducted experiments on birds and observed that the fatty secretion of their skin contained the precursor chemical of vitamin 'D' and that physiologically vitamin 'D' is formed in the plumage of normal birds by the ultra violet irradiations of the Vitamin precursor. The observations had been helped by the fact that the birds owed a single fatty gland in the coccygeal region at the base of their tails to feed the entire plumage. The effect of the removal of this one gland could be clearly studied. Whereas in men and other animals the case is quite different, they owe millions of tiny fatty glands scattered and imbedded in the skin through out and so is the case with their hair follicles. Dr. Hou found that operated birds (removal of their fatty glands) suffered a progressive impairment of general

health and eventually died, displaying signs suggestive of rickets.

Vitamin 'D' has the most limited distribution in nature of any of the vitamins and this explains why it becomes essential to preserve and maintain the body resources of it. Probably as only natural food known to contain the vitamin 'D' in significant amounts is the milk and its products.

SOLAR ENERGY—

Solar energy specially concerns the subject of the animal hair, so it will be essential to understand it. There is a free, abundant and inexhaustible supply of the solar energy which is a safe perennial source of power to meet the needs of life on earth. This energy is being constantly generated; the problem is how to harness it. After we have learnt this secret, there shall be evolved new methods of the health problem and new chapters of healthy living will be opened. The solar energy has unlimited potentialities to serve the mankind in a hundred and one ways. Plants daily use this vast amount of energy for their growth. It is also well known that animal life too owes its existence to solar rays but, "how this happens" has long long been a mystery. My book now offers the much needed explanation.

The utility of solar energy was known even to the primitive people, who therefore worshipped sun as a God. They kept also their body hair secretly intact.

Without sun life is impossible on earth. In this age of science, the importance of solar energy has of course, been universally recognised, but only in principle and little in practice. The practice of shaving, lavish use of soap, heavy clothing, use of hair fixers and hair dyes and an indoor life, seriously hamper the assimilation of the solar energy.

HOW BEST TO UTILISE THE SOLAR ENERGY

1. The body hair—a tissue that absorbs solar energy should be maintained intact.
2. Fatty secretion of the skin, keeps the skin and soft, smooth and supple. It is a strong disinfectant and thus wards off many of the microbic diseases. It is the bearer of the precursor chemical of vitamin 'D' and thus it serves as the most useful and precious item. Soap, being a strong detergent, deprives the skin and hair of the fatty secretion and so should be used sparingly.
3. From purely health point of view, it

is best to almost naked, just like rest of animals. Put the man happens to be a social being; in all his worldly undertakings, he is firmly bound down by certain moral social and civis customs. His body dress stands as an important and prominent item of that very social order. He can not wholly go back to primitive period, but he should so adjust and arrange his daily activities as to allow maximum exposure of his body to the sun's rays. Bathing should invariably be undertaken in the open as it is the time when the whole body gets stripped of all its covering and thus gets good opportunity for a brought exposure. To allow maximum facility for adjustments, clothing should be as light as possible.

4. Hair fixers and hair dyes are very injurious to health and should be avoided as they hamper the proper function of the hair.

5. Indoor life—The modern industrial and social order has confined us, for the most part, inside doors, but still much can be done in order to get the best of the solar energy.

NO LIFE WITHOUT HAIR :—

As there can exist no life without solar rays

similarly no animal life possible without hair or scales. It may be questioned How does the modern shaven man continues to exist ? Well it is impossible, as mentioned before, to root out or shave out all the body hair or the extirpate all the fatty glands of the skin. The act of shaving causes only partial deprivation and not the total and so can not cause total extinction of the life thus the incomplete life the shaven man lives, depends upon the short body hair, spreading on to the entire body, left un-ravaged by the razor

DEFICIENCY AILMENTS

It will not be possible deal with the deficiency ailments any details. such a short pamphlet. but I would like to take up-tuberculosis, which may be called the captain of the Men of Death as it claims one victim out of ten killed by all the diseases together. I need not dilate on the ravages of this disease as they are too evident. If we could possibly control this disease alone, we would do a greate service to mankind. As a matter of fact, tuberculosis is a disease of calcium deficiency and its bacterial stage in the final breaking down phase of the organism which for long happens to be in the vicious circle of faulty metabolism and weakened

defences. The shaving causes vitamin 'D' deficiency and this vitamin, in its turn, is directly concerned with the calcium metabolism of the whole organism.

It may be asked All men on the face of earth who, with exception of sikhs, shave should be more or less suffering from deficiency in the vitamin and none among Sikhs should be. But is such the case ?

Well even the best health has its limits and can not be expected to have an absolute immunity against disease and erosion. All organised things are liable to disintegration one day or the other. There are lot of other factors which undermine health and cause deficiency ailment. We can not remain contented with an integrate organism alone but shall have to be careful in many respects to maintain in the best condition. Thus although an unshorn person better placed in health than a shorn person but can not enjoy an absolute safety.

have to produce the undernoted evidence in support of above contention

Nair and Ray conducted tuberculin tests on thesus monkeys (Ind. J. Of Tub., 1, 2 85—88, 1854) and reported that the animals, caught from

the jungle area of Hathras and Mathura districts, had been practically free from tuberculous infection. Whereas the animals, caught in Delhi and its neighbourhood, living in close association with human beings, showed 10.4% positive results to tuberculin tests. Tubercle bacilli were found to be of the human type and the source of infection from human beings had been obvious.

The survey undertaken by Seal, Mazumdar, Bhattacharya, and Banerjee (In J. Of Tub., 1, 3, 116—24, 1954) also reveals an important data. They conducted the tuberculosis morbidity survey with the help of massminiature radiography. Their survey actually covered 4246 individuals in 618 families, of these 2540 were tuberculin tested; 2344 or 92.3% were available for reading the results and 912 or 38.9% were found tuberculin positive. Among the case 64.7% were males and the remaining 35.3% were females. The males constantly showed higher infection and morbidity rates than the females, the rates of males and females morbidity cases being 2 1.

However more vigorous survey and investigation is needed to put the whole problem on sound basis of judgement.

A WORD TO THE LEADERS OF THE DAY

The problem of the human hair need no longer remain enclosed and envolved in religious sectarian prejudices and practices. it is the straight way health problem of the human society and ought to be dealt with and solved as such. A good thing ought not to be allowed to suffer simply because it is owned by a particular religion or society.

CERTAIN QUESTIONS & THEIR ANSWERS

Questions about hair are most frequently asked today so it is essential to understand and to answer them in a sway supported by authority.

Q. Wearing of short hair allows ample exposure of the scalp to the sun rays would not the shaven head stand a good comparison with wearing of long hair, which remains covered for the most part of the day ?

A. The exposure will be most healthy, provided the sun rays absorbing tissue—the long hair are maintained unshorn. But the difficulty is that the man happens to be a social being, otherwise it would make little difference if the man also goes about all naked like the rest of the animal word.

Covering of the scalp would not deter proper function of its hair, provided its gets occasional exposures. The position will be made

clear still from the under-given table :—

TABLE—Covered head versus bare head

Category	Mechanical protection against injury & vicissitudes of the climatic extremes	Absorption of U.V. Rays & activation of vitamin 'D'	Social order	Health value or Net result
Unshorn head without head dress	+	++ Free in 'out-of-doors life'	-	+++
Unshorn head with head dress	++ Natural and artificial protection both	+	+	++
Shorn head with head dress	++ Artificial protection only	-	+	-
Shorn head without head dress	- No protection	++ Mutilation injuries function	++ Popular in a society	++

+ Appreciable; ++ positive; +++ dedly positive — —+ doubtful.

Q. Clean shaven head is a guarantee against vermin infection-won't it be a fair justification for cutting the hair short?

A. It is not advisable to cut the nose to spite the face. Vermins can be effectively avoided these days by use of D. D. T. etc.

Q. Why it is that even those people, who maintain their body hair intact, also suffer at times from calcium deficiency diseases like tuberculosis?

A. In this connection, close association plays an important role as has been apparent from the data already given before viz. Tuberculin tests in thesis, monkeys and the tuberculosis morbidity survey.

"No body is safe till all are safe.

Q. It is a problem for an average mother to control the long hair of infants and small children. The wearing of short hair enables them to keep the scalp clean and hair in order. Would it not be advisable then, that only the growth up children may be required to wear their hair long?

A. In building a better nation, one has to build from the foundation up and not from the top down. Today's children are the citizens of tomorrow their health has to be built up on a

strong foundation. The need of vitamin 'D' is greatest during the active growing period of the early life and hence the necessity of long hair from the earliest age.

Q. Is it not that the man is practically of a hairless creature and that thin hair coat of the major portion of his body surface is the result of the phylo-genetic decline in the course of evolution, that the hair has become a rudimentary organ and has lost its importance to him?

A. The man is decidedly a hairy animal with distinctive and specific regional distribution of his hairy coat. His whole body surface is studded with hair excepting only palms and soles of the hands and feet. It is the human being alone who possesses the longest hair over his head and so on his face, among the whole animal world. If the actual surface area of the hairy coat of these two regions alone were taken the result would certainly defect the evolution theory. The theory becomes defunct, when we see that in contrasts only the density of the scalp hair is given and its length is totally ignored.

Differences in the density and distribution of the hairy coats is seen even from man to man

Sexes of the same stock also widely differ in this respect. There is little hair on the face of the fairsex but she has got longer and denser hair on her scalp than her counter-part the man. Baldness is the usual of man, whereas a female seldom get bald, and so on.

The starting sight of heaps of shorn hair, in around all the shaving saloons, should alone suffice to expose the queerness and futility of the "Evolution Theory"

Thus a contrast of the hairy coats of different animals, in support of the evolution theory, is not only unjust and erroneous but very dangerous. Dr. Harbhajan Singh has wisely depicted, in his "Foreword" to my book.

THE HAIR AND HEALTH :—

"Surely there must be some purpose of nature in endowing the highest creation on earth—the man—with longest hair on the scalp coupled with biggest brain (cerebrum). No other animal—living being has such a big cerebrum in its skull. Nor this crown of glory to adorn its head, as well befits the king of all creation of this globe—the homo—sapein."

SOME OF THE PROMINENT APPRECIATIONS ALREADY RECEIVED

1. Dr. Agnes Savill M. A., M. D., P. R. C. P. I.
Devonshire Place London.

"The subject appeals to me as an intelligent application of modern scientific thought on the subject of hair. The conclusions arrived at are doubtless probable."

2. Dr. Jesse Feiring Williams M. D. Sc. D.,
Carmel—California, U. S. A.

"Your hypothesis very reasonable."

3. Dr. Harbhajan Singh F. R. S., M. B. B. S.,
D. O. M. S., New Delhi.

"Dr. Chanda Singh has put up a strong case, Marshalling facts and arguments in his favour. He has spent much time and exercised much thought and has brought to the forefront the importance of the subject of human hair."

4. Sirdar Bahadur, Principal Bhai Jodh Singh
M.A., M.L.C., Ludhiana.

"His presentation is scientific and the hypothesis reasonable. I hope he will carry on his research work and by this will have done service to the cause of physical welfare of his countrymen and the world at large."

5. Principal Sirdar Teja Singh M. A.,
Amritsar.

"The Book is written purely on scientific lines. It shows the relation between health and hair and proves convincingly that the preservation of hair is conducive to health. My belief in the preservation of hair is deepened, not only because Guru Gobind Singh has ordered it, but also because it is scientifically necessary to do so. The Book is not only a useful addition to the scientific literature, but also a laudable contribution to the preservation of SIKHISM."

6. Principal Sirdar Narinjan Singh M. Sc. New
Delhi.

"It is good and original Book and you have taken much pains in preparing it, for which you deserve my congratulations.

