

Original Research Article

Effect of yoga on general health: food habits versus blood groups

Acharya Balkrishna¹, Anita Verma^{2*}, Rachana Bhattarai³, G. Paran Gowda⁴

¹Founder, Patanjali Institutions, Haridwar, Uttarakhand, India

²Research Scholar, Department of Yoga Science, Patanjali University, Haridwar, Uttarakhand, India

³Continental Food and Nutrition Expert and Chairperson, Rachnaaz Educational and Charitable Trust, Chennai, India

⁴Professor, University of Patanjali, Haridwar, India

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*Correspondence:

Anita Verma,

E-mail: anita.v.9@gmail.com

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ABSTRACT

Background: In this paper, we attempted to critically analyze the relation between food habits intake versus different blood groups. In majority of the cases we found that there is a close link between the food habits versus the blood groups.

Methods: As a sample measure, we collected 50 sample blood groups and their respective food habits. Descriptive statistics is applied to know the average number of people having different food habits versus blood groups. The study covers 25 females and 25 males. The target groups cover students, public and staff of Patanjali Yogpeeth and also patients.

Results: The findings of the study show that the 4 major blood groups A, B, AB and O have almost the same food habits in terms of calorie intake. Secondly, the study shows that there is a probability of blood groups having a relation to different ailments which could be treated with appropriate dieting systems and energy. Thirdly, the sample study shows that people having AB blood group may be more prone to mental discomforts for which Alovera juice along with general yoga practices has been suggested followed by other blood groups; A, B and O.

Conclusions: This study will be useful for all the medical and paramedical practitioners, dieticians, nutrition experts. It will have general health policy implications at primary and sub center level centers.

Keywords: Food, Calories, Blood groups, Disorders

INTRODUCTION

The medical fraternity and scientists across the globe have not subscribed concretely the blood group relation with food habits. Here in this article, we are critically analyzing its relationship with calories intake. This critical study throws many challenges to the experts in the field of nutrition, dieticians, naturopathy therapists, and other such health practitioners.

The prevalent concepts of diet and nutrition are based on age, calorie requirements, sex, and nature of work of a

person. A diet plan for any individual primarily focuses on the said aspects and his/her health condition. The diet plan also differs according to the culture, region and religion of people. It can further be contemplated that if a baby's blood group can be known when he/she is in the womb then the mother's food habits can be changed accordingly so as to benefit the baby's health. There is an immense need to carry out genetic research in the area of blood groups of people.¹

In this paper, we are analyzing the calories intake versus blood groups of different people and also suggesting

various Patanjali organic and herbal food products for people having health disorders.

METHODS

During a study period of 4 weeks, a general survey was carried out among the staff members and students at Patanjali Yogpeeth and at University of Patanjali, Haridwar. A primary data on blood groups are collected from the staff members from the dental unit of Yogpeeth and also from the University of Patanjali. Swami Ramdev's food habits and yogic practices were also observed. The sample size was 50. A secondary data was collected from various research journals including psychological parametric tests data. Further we supplemented our findings from literature survey of various national and international journals. For example we have quoted from the American Journal of Epidemiology to validate our primary findings.

One of the co-authors Ms. Rachna Bhattarai has done extensive research on blood groups and food habits. She has worked with the food habits of about 100 patients in different hospitals in Chennai whose data had to be kept confidential due to the hospital privacy policies.

Inclusion criteria

Inclusion criteria were subject is a male or female between the age of 16 and 45; subject has been a yoga practitioner for at least 1 year; subject does not have a history of any major illness past 6 months and minor illness past 1 week; subject consumes Patanjali Food and Herbal Supplements.

Exclusion criteria

Exclusion criteria were subject suffering from any dietary disorders, subject who consumes junk food, tobacco, cigarette or alcohol; subject having irregular sleep cycle.

RESULTS

The Table 1 shows the data on daily intake of food converted into energy units and classified according to the blood groups of the individuals. The food items which were taken into consideration were food grains like wheat, corn, etc. seasonal vegetables, pulses, rice and seasonal fruits and milk. The calories derived from each food item in a day was calculated for each individual and summed up to get the standard calorie intake (per day) of normal healthy people who practice yoga which is shown in the under mentioned Table 1.

Table 1: Standard calorie intake (per day) of normal healthy people who practice yoga.

Participant No.	Blood group	Calorie intake	Participant No.	Blood group	Calorie intake
1	B	2456	26	O	2254
2	B	2432	27	O	2406
3	B	2560	28	O	2265
4	B	2351	29	O	2354
5	B	2365	30	O	2410
6	B	2540	31	O	2430
7	B	2565	32	O	2459
8	B	2201	33	O	2364
9	B	2515	34	O	2365
10	B	2316	35	O	2236
11	B	2372	36	O	2235
12	B	2103	37	O	2154
13	B	2130	38	O	2220
14	B	2150	39	O	2358
15	B	2154	40	O	2354
16	B	2210	41	O	2564
17	B	2289	42	O	2230
18	B	2236	43	O	2210
	Average	2330.28	44	O	2310
19	A	2310	45	O	2350
20	A	2452	46	O	2289
21	A	2230	47	O	2354
	Average	2330.67	48	O	2310
22	AB	2369	49	O	2398
23	AB	2398	50	O	2370
24	AB	2432		Average	2329.96
25	AB	2123			
	Average	2330.50			

Table 2: Average calorie intake per person.

Blood group	No. of participants	Percentage of participants	Average calorie intake per person
A	3	6%	2330.67
B	18	36%	2330.28
AB	4	8%	2330.50
O	25	50%	2329.96

Table 1 thus provides an input for determining the presence of any relation between blood group and food habits of the sample population.

The average calorie intake per person is calculated separately for each blood group and the results are summarized in Table 2. The number of participants of each blood group (out of total 50 participants) and the average calorie intake per person of the respective blood group is thus summarized.

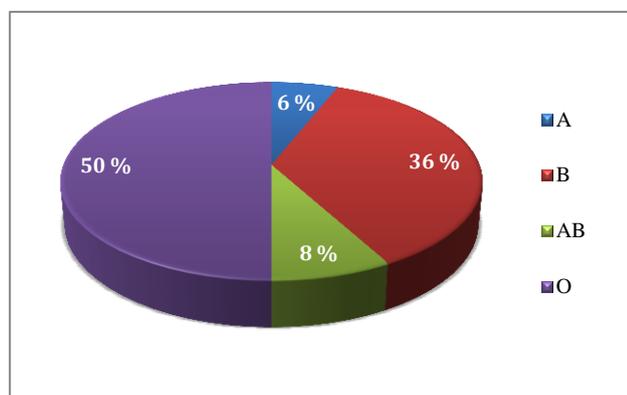


Figure 1: Percentage of participants of different blood groups.

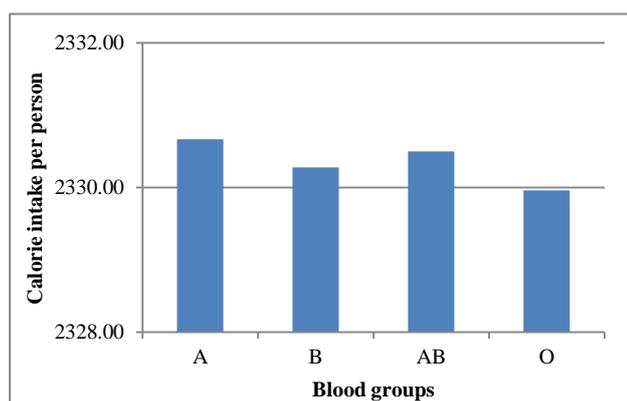


Figure 2: Blood groups and calorie intake per person.

The data obtained in Table 2 is represented in Figure 1 in the form of a pie chart which represents the percentage of participants of each blood group out of the total sample of 50 participants.

It can be observed that 50% of the participants possess blood group O, making it the most commonly found

blood group in the sample, 36% participants possess blood group B, 8% participants possess blood group AB and only 6% of the participants possess blood group A making it the least commonly found blood group among the participants.

In Figure 2 the calorie intake per person of each blood group is plotted in the form of a bar diagram where the height of vertical bars represents the calorie intake per person of each blood group.

It can be observed from Figure 2 that average calorie intake is almost same for every blood group, having a range of 2329-2331 calories per person per day.

DISCUSSION

Thirty five blood group systems are recognized by the International Society of Blood Transfusion - two dominant systems are ABO and Rhesus (Rh).² According to these two systems, the four major blood groups are A, B, AB and O. The presence or absence of Rh factor determines the +ve or -ve sign before a blood group. Blood volume is mainly composed of 55% plasma and 45% blood cells. Blood groups naming is done on the basis of presence or absence of antigens on the surface of red blood cells (RBC's).

The presence and lack of blood antigens in some blood groups induce blood membrane changes, morphologically and functionally. The structure-dependent functions of blood types can link the blood groups to health and diseases.³

A recent study found people with type AB blood were 82 percent more likely to experience difficulties with memory recall, language, and attention than people with other types.⁴ One reason, researchers suspect, is due to the key clotting protein, known as coagulation factor VIII, which may actually reduce the quality of blood flow to the brain, rather than sealing up injury sites.

Multiple studies have found a correlation between a woman's blood type and the reproductive system. One study by researchers at Yale University and New York's Albert Einstein College of Medicine found that women with blood type O are twice as likely to have a lower egg count and poorer egg quality as others.⁵ The researchers measured the level of reproductive hormone FSH in the women and adjusted for other fertility factors, such as age and BMI. Women with blood type O were more likely to

have higher levels of FSH, indicating a low ovarian reserve.

A 2012 study from Harvard University found people with non-O blood also happen to have an increased risk for cardiovascular disease.⁶ But those with type AB blood were the most at-risk overall, demonstrating a 23 percent greater chance of suffering from heart disease than type O subjects. Further, certain blood types are more likely to co-occur with varying levels of hormones in the body, physicians commonly tailor their exercise recommendations to the patient's type. People with type A blood, for example, are more likely to have higher levels of cortisol, the stress hormone, in their body. When the adrenal gland dumps more and more cortisol into the blood, people's stress response grows more acute.⁷

Researchers believe this could be due to the correlation between blood type AB and blood clots, as well as, higher rates of inflammation that have also been linked to type AB and B blood types.⁸ A survey also states that most of the mentally disturbed people by birth or later half of their life are mostly found A+ and AB+. As most of the organizations find it not to disclose the blood group of their patients Therefore it is very hard to get the data whereas, in person we also have noted that it is being said AB+ and A+ are highly weak in sense organs. Even the disabled child weather they are deaf, dumb or blind. Mostly its being found they carry A+ and AB- blood group⁹.

The clinical significance of the ABO blood group system extends beyond transfusion medicine and several reports have suggested an important involvement in the development of cardiovascular, oncological and other diseases.¹⁰ A recent systematic review and meta-analysis documented that having a non-O blood group carries an approximately two-fold increased risk of venous thrombosis.¹¹ The higher prevalence of blood group A in patients with gastric cancer formerly observed by several studies has also been recently confirmed in a large prospective population-based study involving more than one million of Scandinavian blood donors followed for up to 35 years.^{12,13} The association between ABO blood types and colon cancer showed an increased risk of colon carcinoma in AB blood type.¹⁴

Rachna Bhattarai, International Chef and dietician, in an interview in Guardian News Bureau, stated that people having B+ blood group should refrain from eating grain based food as it can affect their bones. Similarly, Dr. Peter J. D'Adamo in his book on "Eat Right for Your Type" suggests that the diet of an individual should be based on the order of evolution of blood groups.¹⁵ This approach needs to be followed for all other blood groups and the concept of diet based on blood groups needs to be explored which is the basis of our research.

Also the food habits as well as the quality of food products have changed with time. Increased use of

chemicals in the processing of food has degraded the food quality and decreased the natural beneficial properties of the food products. The solution to this problem lies in the use of organic and natural food products made available by Patanjali.

Based on the above discussion, the blood groups related disorders with suggested solutions are provided in Table 3 below.

Table 3: Blood groups versus disorders and suggested food products.

Blood group	General disorder	Suggested food products ¹⁶
AB	Memory problems, cardiac diseases	Amrit rasayan, unpolished pulses
A	Stress and anxiety problems, gastric problems	Special chyavanprash, Amrit rasayan, Badam pak
B	Higher risk of inflammation	Aloe vera juice, Cow urine ark, Mustard oil
O	Lower estrogen level in females	Special chyavanprash, Amrit rasayan, Badam pak

Thus, Patanjali organic food products promote health and wellness. They are a rich source of proteins, vitamins, minerals, antioxidants and essential oils which are important for the strengthening of our immune system. These products help in proper digestion of food which is the basic requirement for a healthy body. Also, the founder of Patanjali Institutions, His Holiness Swami Ramdev Ji has been known to consume a diet consisting of only fruits and vegetables for many years and at present he is the Yoga Guru propagating various yoga practices like asanas, pranayama, meditation, etc. His energy levels are amazing. So a diet consisting only of fruits and vegetables can't be considered as incomplete. The use of these products coupled with yogic practices thus helps in providing as healthy mind, body and soul.

CONCLUSION

Food habits and their respective blood types may influence the risk of different diseases by different known and unknown mechanisms. Awareness creation is essential in this regard at primary health centers. This popularization will also have policy implications at national level. To overcome the tongue taste food habits, if one takes the path of yoga, taste could be replaced with a proper diet system. Typical yogic practices could be like bhastrika (forceful exhalation with passive inhalation), nadisuddhi (nerves purification), savasana (lying posture), surya namaskar (combination of body and mind exercises) etc. It can be beneficial to increase knowledge in this aspect because individuals with high risk blood types could be screened and trained for modifying their lifestyles, health behavior and

environment, and other attempts that may increase public health.

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