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# The alliance of chronological age with health parameters sportspersons

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**Abstract**
This study was aimed to see the relationship of chronological age with body fat and BMI of sportspersons. To achieve the objectives of this study the data was collected on 50 samples from all India University held in lovely professional university, Punjab in the session 2014-15. To select the samples from the population under non-probability sampling method the purposive sampling technique was used by the researcher. The data was analysed with the help of SPSS 22 version. The product moment correlation was used to analyse the raw data. After analysing the data statically it was found that the relationship between the variables is closer to zero and the p value associated with the variables is greater than 0.05. Hence it was concluded that chorological age have nothing to do with the health perimeter of sportsperson because there is no relationship is found between chronological age with body fat and BMI of sportsman.

**Keywords:** chorological age, body fat percentage, skeletal muscle and BMR

## Introduction
Stand and die in your own strength; if there is any sin in the world, it is weakness; avoid weakness, for weakness is sin weakness is death (swami Vivekananda). In daily life we always found some quotations like, "health is wealth", "the greatest wealth is health", "health is a state of complete harmony of the body, mind and spirit. When one is free from physical disabilities and mental distractions, the gates of the soul open" (B.K.S Iyengar). The appraisal of body composition can provide valuable information for both the athlete and coach in monitoring sequentially the influences of training and nutrition. Therefore, the determination of body composition is important in terms of a training plan as well as success in the game (Kurt *et al*. 2010) [3]. The total amount of body fat consists of essential fat and storage fat. Fat is in the marrow of bones, in the heart, lungs, liver, spleen, kidneys, intestines, muscles and lipid-rich tissues throughout the central nervous system is called essential fat, whereas fat that accumulates in adipose tissue is called storage fat. The essential fat of women is higher than that of men because it includes sex-characteristic fat related to childbearing. Storage fat is located around internal organs (internal storage fat) and directly beneath the skin (subcutaneous storage fat). It provides bodily protection and serves as an insulator to conserve body heat (Kamlesh M.L, 2012) [2]. The field of body composition assessment is developing rapidly on several fronts. The lean body mass consists of vital parts of the body that includes tendons, ligaments, bones and muscles and with various internal organs and also some amount of vital fat. Our body contains much needed fat in internal organs and marrows of the bones. It is highly important that professional and the public realize that a certain amount of adipose tissue or fat is essential for the body to function. Body fat also serves to protect internal organs. Generally, we know that if we cannot engage with sufficient physical activity, so with the improvement of chronological age the health parameters may change. So in this study researcher was trying to see the impact of age on in the health parameters of sportspersons.

## Objective of the study
To fine out body fat percentage, BMI of sportspersons.
To find out the relationship between chronological age with fat percentage and BMI of sportspersons**.**

## Hypothesis
The hypothesis of the study was "there is significant relation between all three variables with physiological age".

## Significance of the study
The study will be helpful to know the relationship between physiological age with body fat percentage, skeletal muscle and BMR.

## Methodology
For the purpose of study the non-probability sampling method was used by the investigator to select the samples from the population. A total of 50 samples were drawn during all India competition held in lovely professional university, Punjab in the session 2014-15. The data was collected on chronological age, body fat and BMI of the sportspersons with the help of "Body composition monitor" with scale HBF-361. The age of the subjects is ranges between from18-25 years. The data was analyse with the help of SPSS22 version by applying the statistical technique Pearson correlation.

## Findings and Interpretations
In the following sections the statistically analysed data has been presented. Results pertaining the relation between the chronological age, body fat and BMI of the sportspersons.

**Table 1:** shows the mean, S.D of the chronological age, body fat and BMI of the sportspersons.

| Descriptive Statistics | | | |
|---|---|---|---|
| | **Mean** | **Std. Deviation** | **N** |
| Chronological age | 20.1200 | 1.63682 | 50 |
| Body fat | 15.5200 | 4.20117 | 50 |
| BMI | 22.0506 | 2.18904 | 50 |

After applying the statistical technique the fallowing have been taken for analysis of the data. The above table shows the average values and std. deviation of all three groups which are taken in the study.

**Table 2:** shows the relationship among all selected variables in the study.

| Correlations | | | | |
|---|---|---|---|---|
| | | **age** | **bodyfat** | **BMI** |
| age | Pearson Correlation | 1 | .081 | .237 |
| | Sig. (2-tailed) | | .578 | .098 |
| | N | 50 | 50 | 50 |
| Body fat | Pearson Correlation | .081 | 1 | .728** |
| | Sig. (2-tailed) | .578 | | .000 |
| | N | 50 | 50 | 50 |
| BMI | Pearson Correlation | .237 | .728** | 1 |
| | Sig. (2-tailed) | .098 | .000 | |
| | N | 50 | 50 | 50 |

**Correlation is significant at the 0.01 level (2-tailed).

Table no 2 shows the relationship of chronological age, body fat and BMI of the sportspersons. The result shows the relationship value chronological age with body fat and BMI is .081 and .237 respectively, the p value associated with this is .57 and .09 which is greater than 0.05; which means there is insignificant relationship between chronological age with body fat and BMI of the sportspersons.

## Conclusion

After statistically analysed the data with the help of SPSS it was concluded that there is no relationship of chronological age with health parameters (body fat and BMI of the sportspersons).

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