

**EFFECT OF 20 MINUTES RUNNING EXERCISE ON DEPLETION OF  
BLOOD GLUCOSE LEVEL ON VARIED INGESTION**



BY

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ROLL: PG/VUEGS32/PED-IVS NO: 21018

REG NO: 0001677 OF 2019-20

A THESIS

PRESENTED TO THE VIDYASAGAR UNIVERSITY

FOR THE DEGREE OF MASTER OF PHYSICAL EDUCATION

DEPARTMENT OF PHYSICAL EDUCATION,

MUGBERIA GANGADHAR MAHAVIDYALAYA,

BHUPATINAGAR : PURBA MEDINIPUR

WEST BENGAL : PIN - 721425

JUNE, 2023



**DEDICATED**

**TO**

**MY**

**PARENTS**

**&**

**TEACHERS**

**MUGBERIA GANGADHAR MAHAVIDYALAYA**  
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**BHUPATINAGAR :: PURBA MEDINIPUR**  
**WEST BENGAL :: 721425**



**VIDYASAGAR UNIVERSITY**

**Biswajit Dhali**  
Assistance Professor

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Ref . No... M.P.Ed./T18/2023/2.

Date: 21.07.2023

**CERTIFICATE BY THE SUPERVISOR**

This is to certify that Payel Chakraborty is a regular student of Mugberia Gangadhar Mahavidyalaya under Vidyasagar University, in the season of 2021-2023. For the Master of Physical Education, semester-IV carried out her research study my supervision and guidance in partial fulfilment of the requirements for the master of Physical Education degree with her thesis entitled ***“EFFECT OF 20 MINUTES RUNNING EXERCISE ON DEPLETION OF BLOOD GLUCOSE LEVEL ON VARIED INGESTION”***. The material and data composed from students in this study are genuine and were collected by her.

Date: 21.07.2023

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MUGBERIA – 721425, WEST BENGAL**

**DECLARATION**

I declare that the thesis entitled ***“EFFECT OF 20 MINUTES RUNNING EXERCISE ON DEPLETION OF BLOOD GLUCOSE LEVEL ON VARIED INGESTION”*** is my own work, conducted under the supervision of Asst. Prof. Biswajit Dhali, Department of Physical Education, Mugberia Gangadhar Mahavidyalaya, Purba Medinipur, West Bengal, India, which was approved by the Departmental Research Committee.

I, further declare that to the best of my knowledge, the thesis does not contain any work, which has been submitted for the award of any degree either in this university or in any other university without proper citation.

**Date:** 21.07.2023

*Payel Chakraborty*  
**(Payel Chakraborty)**

**M.P.Ed. student**

## **ACKNOWLEDGEMENT**

The investigator acknowledges sincere gratitude to Dr. Swapan Kumar Misra, Principal of Mugberia Gangadhar Mahavidyalaya, who gave me the opportunity to undertake the study.

I express my profound respect to the Head of the Department of Physical Education, Mugberia Gangadhar Mahavidyalaya, Dr. Debasish Ray who gave me necessary information regarding the Dissertation.

I am highly indebted to Mr. Biswajit Dhali for his guidance and constant supervision as well as for providing necessary information regarding the Dissertation & also for his support in completing the whole work.

I would like to express my sincere gratitude to all my respected Teachers and non-teaching staff, Mugberia Gangadhar Mahavidyalaya, for their kind co-operation and encouragement which helped me to complete my dissertation.

My thanks and appreciations also go to B.P.Ed. students as subject of my study and my native friend who have willingly helped me through collecting data.

I would like to extend my sincere thanks to all of them.

Date: 21.07.2023

*Payel Chakraborty*

**Payel Chakraborty**

**(M.P.Ed. SEM-IV)**

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## **SUMMARY, CONCLUSIONS AND RECOMANDATIONS**

### **5.1. SUMMARY:**

Exercise is nowadays playing an increasingly important role in the lifestyle of the Western world. Objectives of the present study were to find out the difference of blood glucose level at rest, after varied ingestion and after exercise and to compare among them. To achieve purpose of the study only 11 female subjects were selected and age 21-25 years. Variables were age, standing height, body weight and blood glucose level. 20 minutes continuous low intensity treadmill exercise average 10km/hour were selected in each trial of data collection. In this study after the collection of resting blood glucose level, subjects were ingested 250ml of water composed with 25gm, 50gm and 75gm Glucose D powder per three trials of data collection in different days respectively. The significance of statistical difference of blood glucose level between rest and post-ingestion and post-exercise was measured by applying paired sample 't' - test at 0.05 level of significance. Statistical difference between three trials of different graded ingestions and exercise on blood glucose level was measured by applying one way ANOVA with Tukey post hoc test at 0.05 level of significance respectively. Finally it may be concluded that resting blood glucose level increases after glucose D intake and decreases after 20 minutes treadmill exercise.

### **5.2. CONCLUSIONS:**

Finally it may be concluded that resting blood glucose level increases after glucose D intake and decreases after 20 minutes treadmill exercise. There was no significant difference of blood glucose level among 25gm, 50gm and 75gm glucose intake but significant changes of blood glucose level among after three exercises.

### **5.3. RECOMMENDATIONS:**

On the basis of result and conclusion drown following recommendation were made for future investigation.

- Similar study may be conducted with the Post Prandial (PP) blood glucose level.
- Similar study may also be conducted with male subjects.
- Similar study may also be conducted with another type of subjects.
- Same type of study may be conducted with another type of activities.
- Same type of study may be conducted after taking a specific kind of food.



# Ethical Permission

## MUGBERIA GANGADHAR MAHAVIDYALAYA

ESTD.—1964



P. O.—Bhupatinagar □ Dist.—Purba Medinipur

S. T. D. Code--- 03220 ☎ Ph. No. : 270236 Pin- 721425 (W. B.)

Ref.no.— M.G.M./ / /2023-2024 *Dated:* 21/07/2023

From: The Principal

Resolution of Code of conduct Committee Meeting dated 11.04.2023

### Members Present

1. Dr. Swapan Kumar Misra
2. Dr. Bidhan Chandra Samanta
3. Dr. Kalipada Maity
4. Dr. Biswajit Garai
5. Dr. Prasenjit Ghosh
6. Dr. Debasis Ray
7. Irani Banerji Chatterjee
8. Taniya Neogi
9. Subha Sahoo Jana

The committee members resolved in its meeting dated 11.04.2023 (Resolution No.1) that Payel Chakraborty, Rahul Laskar, Rajesh Patra and Sharmistha Barman, students of M. P. Ed Department of Physical Education of our college can collect data from human body as part of their dissertation paper (MPCC-403) maintaining the code of conducts laid down in the college website.

Attested  
21.07.2023  
Principal  
Mugberia Gangadhar Mahavidyalaya

Sd/- Dr. Swapan Kumar Misra  
Chairman

# Certificate by the Principal



## MUGBERIA GANGADHAR MAHAVIDYALAYA

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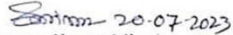
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Date: 20.07.2023

### CERTIFICATE BY THE PRINCIPAL

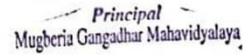
This is to certify that Payel Chakraborty, a M.P.Ed. student of Department of Physical Education, Mugberia Gangadhar Mahavidyalaya, in the season of 2021-2023 has collected the data from our college for her M.P.Ed. dissertation paper (MPCC-403) entitled "*EFFECT OF 20 MINUTES RUNNING EXERCISE ON DEPLETION OF BLOOD GLUCOSE LEVEL ON VARIED INGESTION*".

I wish her success for this Research Study.

  
(Dr. Swapan Kumar Misra)

Principal

Mugberia Gangadhar Mahavidyalaya

  
Principal  
Mugberia Gangadhar Mahavidyalaya