



CODEN [USA]: IAJ PBB

ISSN : 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**

SJIF Impact Factor: 7.187

<http://doi.org/10.5281/zenodo.4314985>Available online at: <http://www.iajps.com>

Research Article

**EXERCISE IS VERY IMPORTANT IN HUMAN LIFE: THE
PARENTS REGULARLY OBSERVE EXERCISE IT HAS
POSITIVE EFFECTS ON THEIR LIFE**¹Ghanwa Riaz, ²Dr Yumna Tariq, ³Dr Aroosa Shabbir¹MTH Faisalabad, ²BHU Basti Mai Roshan Bhakkar, ³DHQ Hospital Pakpattan**Article Received:** October 2020**Accepted:** November 2020**Published:** December 2020**Abstract:**

This report is basically based on paternal exercise improving glucose metabolism in adult offspring so first offer it is very important to know what is paternal. The paternal is basically related to the father are we can also say that from the father side. For example paternal inherit from the father. It is basically the process of inherited from the other side to review what effects of a when parents start exercising it effects the metabolism of a child. The doctors and nurses of mayo hospital Lahore played an important role and create a report that describe the importance of the exercise of parents in the metabolism system of a child. Basically metabolism is the part of body plays an important role which can help the body to reduce fat and digest the food which the human body eats. So the Doctors of Mayo hospital Lahore describe the overview of glucose metabolism is that the glycogen breakdown to the glucose 6 phosphate. In this process the 3 enzymes are included. The first and important glycogen phosphatase. The second one is glycogen team branching enzymes and the last one is Phosphoglucomutase. Metabolism is basically involving all the chemical reactions which is happening in Cellular Level so it is called metabolism. It can be in 2 types that are Catabolism process and anabolism. In catabolism which includes constructive process in the cell in which the big molecules are created in the body and the second type is anabolism. In this the complex molecules are formed.

Keyword: Metabolism glucose, paternal, fat mass, exercise, fertility, glucose tolerance**Corresponding author:****Ghanwa Riaz**

MTH Faisalabad.

QR code

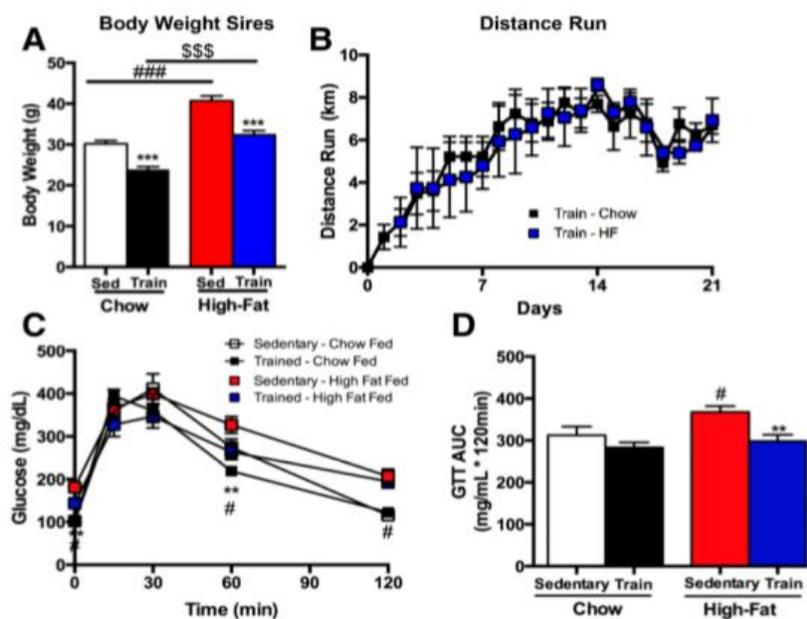


Please cite this article in press Ghanwa Riaz et al, *Exercise Is Very Important In Human Life: The Parents Regularly Observe Exercise It Has Positive Effects On Their Life.*, Indo Am. J. P. Sci, 2020; 07(12).

INTRODUCTION:

According to the medical history and according to the doctors we all know that exercise is very important in human life. So in this report we will study about how the exercise of the parent affects the metabolism system of a child it is observed that the it improves. Poor parents exercise or type of the food can be very dangerous for the human body it can lead to some of the metabolism disease. As we all know that exercise is a very good for human body and can also create much improvement in the body and mostly all of the doctors suggest the patients that they should exercise daily from this they can improve their health and also fasten the process of any treatment. The process of improvement in the body exercises not only for the

person who is suffering from some kind of disease but also for the person who is perfectly healthy because nowadays no one know about what will happen in the future. So if the person wants to be healthy and live long life without suffering from any disease then the person should exercise daily. In this report the doctors and the nurses from the Maya hospital Lahore describe about the the paternal exercise that improve metabolism in adult. The doctors of Mayo Hospital Lahore perform experiment on mice to see the effects of paternal exercise metabolism. So according to the research and report and daily observations the doctor can tell the effects and reactions of the exercise of the parents.



METHODOLOGY:

For this purpose that completing report and research the doctors and the nurses from mayo hospital Lahore collected the data from different type of recharges and perform some of the experiments. The doctor and the trained nurses of Mayo hospital Lahore perform the experiment on 4 week old male mice they feed the mice high fat diet and also for the exercise they attach running wheel in the cage of mice to know the exact results. After 3 weeks of observation under the guidance of doctor one male mice produce the sperm and bread with female mice after this experiment the doctors and nurses come to know that offspring were sedentary during the first year of life. Doctors and nurses observe that high levels of fat can impair glucose tolerance and it can also increase the chances of fatness in the both mother and the father that are of different sex in offspring at 38 weeks of age. After all

of the observations and the reports it is the high chance of increase in paternal exercise to improve the glucose metabolism in adult's especially in offspring after collecting all the results and reports it is clear that paternal exercise can improve glucose metabolism in adults especially in offspring.

RESULT:

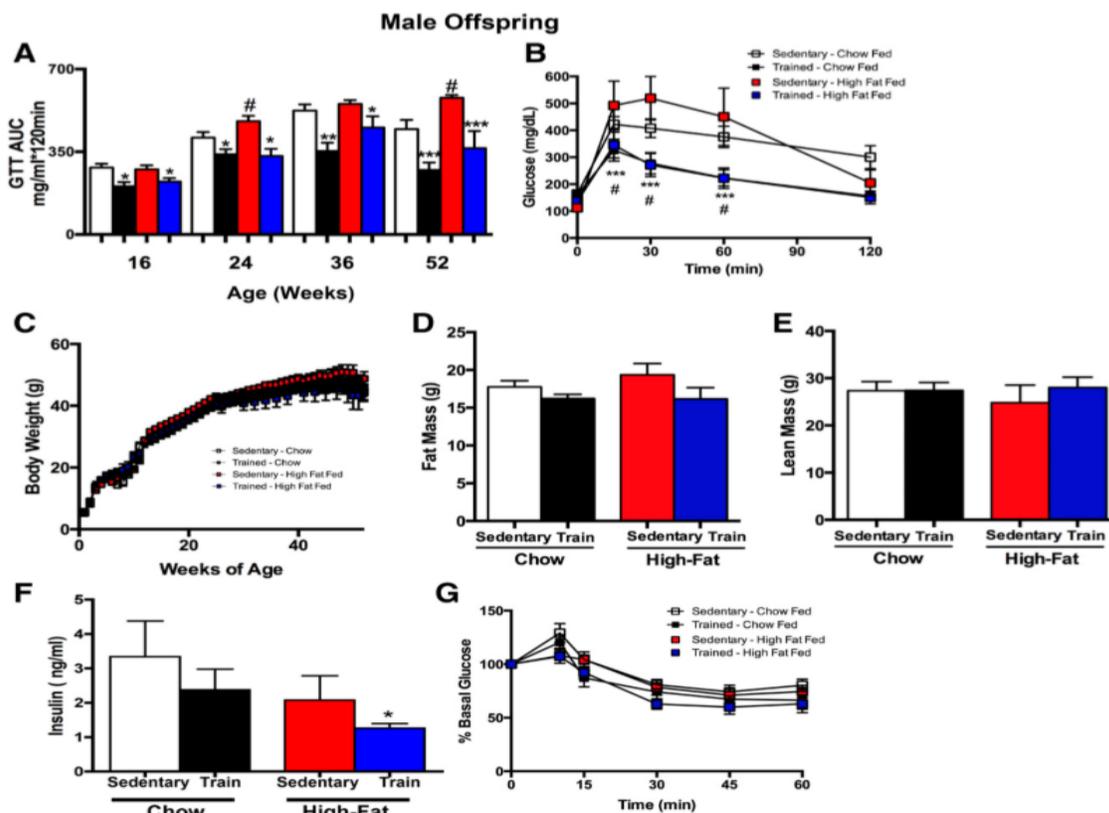
The doctors and nurses of Mayo hospital Lahore perform the examination and with the help of all the results and reports they observe that the Exercise really help to increase and improve the glucose metabolism in adult the major purpose of exercises is to improve body muscles and to help the body to fight against the diseases. Good form of exercise include running, jogging, dancing, lifting the weight, swimming and much more. Basically exercise really improves and increases the insulin sensitivity and

really helps your body and muscles to consume sugars and nutrition from the blood this can also be very important for the body. According to the research exercise is very important as every doctor prescribe their patient to exercise daily. According to the reports and observation the doctors and nurses of Mayo Hospital come to conclusion that if there is a glucose present in the blood then the insulin can be turned it faster to dissolved into fat and also the proteins which we intake daily in our meal can be broken down into the glucose. The process of glucose is to increase the metabolism that is very important and essential but it can take time to complete this process. However this process is much slower than carbohydrates.

DISCUSSION:

From all the observation and analysis by the doctors and the nurses of Mayo hospital Lahore. It was

measured that fat mass or high fat diet in male offspring can be very helpful. Basically after the high fat diet was given to the mice they become faster in overnight and injected with 2 mg of glucose that is combined with deoxy glucose. According to the diagram that is shown we can see the difference before and after exercise. After the exercise the mass of the body reduced and we can clearly see the improvement in glucose tolerance and also we can see the body mass from the diagram. A there is Clearly Improvement shown. It is observed that the of paternal exercise in glucose metabolism in adults the doctors and nurses of Mayo hospital Lahore study both male and female. According to the test and their reports the glucose tolerance become high in percentage in offspring in female offspring from high fat the exercise of the parents rapidly improve the glucose level of the body in the mice which has the age of 38 week.



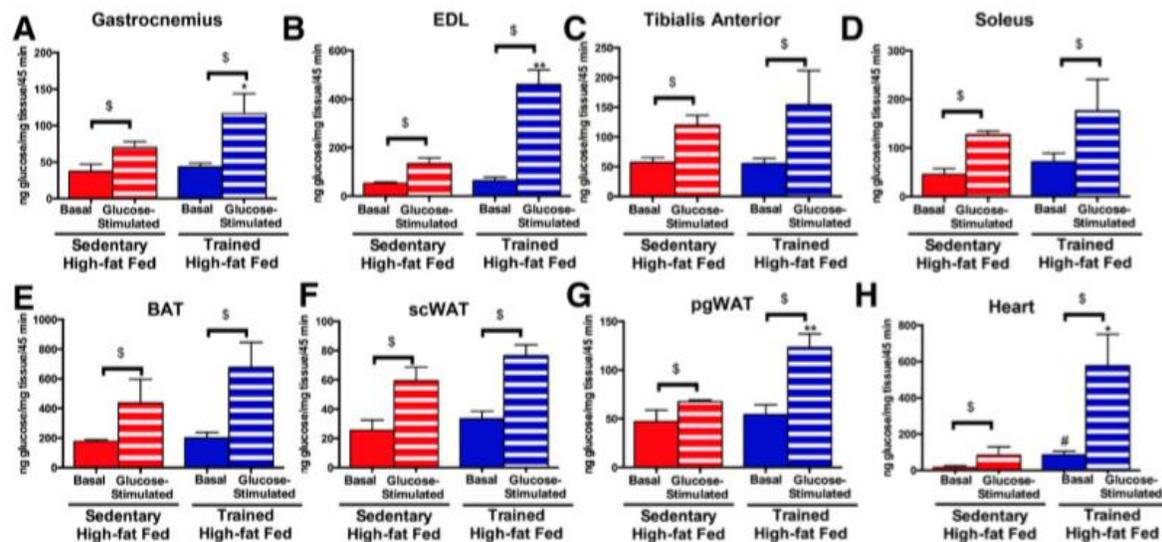
CONCLUSION:

After all the results and their reports that are being observed by the doctors and nurses of Mayo hospital Lahore it is observe that paternal exercise improve glucose metabolism in adult in offspring. It is also stated that High chow diet can increase the percentage of glucose metabolism and also paternal exercise can increase metabolism in both male and

female bodies. In Mayo hospital Lahore the doctors and the nurses use different type of method to examine the results perfectly it take many time and analysis by the professional doctors but at the end of the day with the great effort put by the doctors and trained nurses they finally complete their report.. All of the procedure is held under the guidance of professional doctors and nurses of mayo hospital

Lahore and with the help of this report the doctors and the nurses can see many improvements in upcoming days of glucose metabolism in adults. According to the results the doctors and nurses of Mayo hospital came to know that the metabolism of people who have no diabetes is less identical then the people who are suffering from diabetes. Basically the metabolism process consist of some steps that are as follow first of all the food is consumed by the person then all the carbohydrates in that meal are been heart

broken down into the small pieces of glucose then all the glucose that is broken down enter the bloodstream. The insulin in the body also allowed the glucose to be stored in the muscles as glycogen and all the proteins which is present in our food also get broken down into the small pieces of glucose but it can take time then the process of carbohydrates. These are all the conclusions which is obtained by the doctors.



REFERENCES:

- Stanford, K. I., Rasmussen, M., Baer, L. A., Lehnig, A. C., Rowland, L. A., White, J. D., ... & Rando, O. J. (2018). Paternal exercise improves glucose metabolism in adult offspring. *Diabetes*, 67(12), 2530-2540.
- Carter, L. G., Lewis, K. N., Wilkerson, D. C., Tobia, C. M., Ngo Tenlep, S. Y., Shridas, P., ... & Esser, K. A. (2012). Perinatal exercise improves glucose homeostasis in adult offspring. *American Journal of Physiology-Endocrinology and Metabolism*, 303(8), E1061-E1068.
- Zheng, J., Alves-Wagner, A. B., Stanford, K. I., Prince, N. B., So, K., Mul, J. D., ... & Goodyear, L. J. (2020). Maternal and paternal exercise regulate offspring metabolic health and beta cell phenotype. *BMJ Open Diabetes Research and Care*, 8(1), e000890.
- Falcão-Tebas, F., Marin, E. C., Kuang, J., Bishop, D. J., & McConell, G. K. (2020). Maternal exercise attenuates the lower skeletal muscle glucose uptake and insulin secretion caused by paternal obesity in female adult rat offspring. *The Journal of Physiology*.
- Krout, D., Roemmich, J. N., Bundy, A., Garcia, R. A., Yan, L., & Claycombe-Larson, K. J. (2018). Paternal exercise protects mouse offspring from high-fat-diet-induced type 2 diabetes risk by increasing skeletal muscle insulin signaling. *The Journal of nutritional biochemistry*, 57, 35-44.
- McPherson, N. O., Owens, J. A., Fullston, T., & Lane, M. (2015). Preconception diet or exercise intervention in obese fathers normalizes sperm microRNA profile and metabolic syndrome in female offspring. *American Journal of Physiology-Endocrinology and Metabolism*, 308(9), E805-E821.
- Stanford, K. I., Lee, M. Y., Getchell, K. M., So, K., Hirshman, M. F., & Goodyear, L. J. (2015). Exercise before and during pregnancy prevents the deleterious effects of maternal high-fat feeding on metabolic health of male offspring. *Diabetes*, 64(2), 427-433.
- McPherson, N. O., Fullston, T., Aitken, R. J., & Lane, M. (2014). Paternal obesity, interventions, and mechanistic pathways to impaired health in offspring. *Annals of Nutrition and Metabolism*, 64(3-4), 231-238.

9. Murashov, A. K., Pak, E. S., Koury, M., Ajmera, A., Jeyakumar, M., Parker, M., ... & Neufer, P. D. (2016). Paternal long-term exercise programs offspring for low energy expenditure and increased risk for obesity in mice. *The FASEB Journal*, 30(2), 775-784.
10. McPherson, N. O., Lane, M., Sandeman, L., Owens, J. A., & Fullston, T. (2017). An exercise-only intervention in obese fathers restores glucose and insulin regulation in conjunction with the rescue of pancreatic islet cell morphology and microRNA expression in male offspring. *Nutrients*, 9(2), 122.
11. Guth, L. M., Ludlow, A. T., Witkowski, S., Marshall, M. R., Lima, L. C., Venezia, A. C., ... & Roth, S. M. (2013). Sex-specific effects of exercise ancestry on metabolic, morphological and gene expression phenotypes in multiple generations of mouse offspring. *Experimental physiology*, 98(10), 1469-1484.
12. Masuyama, H., Mitsui, T., Eguchi, T., Tamada, S., & Hiramatsu, Y. (2016). The effects of paternal high-fat diet exposure on offspring metabolism with epigenetic changes in the mouse adiponectin and leptin gene promoters. *American Journal of Physiology-Endocrinology and Metabolism*, 311(1), E236-E245.
13. Wan, X., He, X., Liu, Q., Wang, X., Ding, X., & Li, H. (2020). Frequent and mild scrotal heat stress in mice epigenetically alters glucose metabolism in the male offspring. *American Journal of Physiology-Endocrinology and Metabolism*, 319(2), E291-E304.
14. Falcão-Tebas, F., Kuang, J., Arceri, C., Kerris, J. P., Andrikopoulos, S., Marin, E. C., & McConell, G. K. (2019). Four weeks of exercise early in life reprograms adult skeletal muscle insulin resistance caused by a paternal high-fat diet. *The Journal of physiology*, 597(1), 121-136.
15. Short, A. K., Yeshurun, S., Powell, R., Perreau, V. M., Fox, A., Kim, J. H., ... & Hannan, A. J. (2017). Exercise alters mouse sperm small noncoding RNAs and induces a transgenerational modification of male offspring conditioned fear and anxiety. *Translational psychiatry*, 7(5), e1114-e1114.
16. Isganaitis, E., Suehiro, H., & Cardona, C. (2017). Who's your daddy?: paternal inheritance of metabolic disease risk. *Current Opinion in Endocrinology & Diabetes and Obesity*, 24(1), 47-55.
17. Brown, F. M., Isganaitis, E., & James-Todd, T. (2019). Much to HAPO FUS about: increasing maternal Glycemia in pregnancy is associated with worsening childhood glucose metabolism. *Diabetes care*, 42(3), 393-395.
18. Sousa Neto, I. V. D., Tibana, R. A., Silva, L. G. D. O. D., Lira, E. M. D., Prado, G. P. G. D., Almeida, J. A. D., ... & Ricart, C. A. O. (2020). Paternal Resistance Training Modulates Calcaneal Tendon Proteome in the Offspring Exposed to High-Fat Diet. *Frontiers in Cell and Developmental Biology*, 8, 380.
19. Harris, J. E., Pinckard, K. M., Wright, K. R., Baer, L. A., Arts, P. J., Abay, E., ... & Canova, T. J. (2020). Exercise-induced 3'-sialyllactose in breast milk is a critical mediator to improve metabolic health and cardiac function in mouse offspring. *Nature metabolism*, 1-10.
20. Mega, F., de Meireles, A. L. F., Piazza, F. V., Spindler, C., Segabinazi, E., dos Santos Salvalaggio, G., ... & Marcuzzo, S. (2018). Paternal physical exercise demethylates the hippocampal DNA of male pups without modifying the cognitive and physical development. *Behavioural brain research*, 348, 1-8.