

## MODERN VIEWS ABOUT THE MAIN RISK FACTORS AND PREVENTION OF FATTY HEPATOSIS

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**Abstract.** *The purpose of this article is to study the role of excess body weight in the development of fatty hepatosis. A review of current literature on the topic will be conducted to identify the mechanisms leading to the development of fatty liver disease in overweight individuals. The study will survey 100 overweight patients diagnosed with fatty liver disease to determine the prevalence of the condition in this population. This will be followed by a qualitative study of 20 participants to explore factors that may have contributed to their development of fatty liver disease.*

**Keywords:** *BMI, obesity, inflammation, hepatosis, abnormal cholesterol, fat absorption, triglyceride levels.*

**Introduction:** Fatty liver disease is a condition in which fat accumulates in liver cells, leading to inflammation and scarring. It is a common liver disease, affecting up to 25% of the population in some countries (Firpi-Prez et al., 2018). Although the exact cause is unknown, it is generally accepted that overweight and obesity are risk factors for the development of fatty liver disease (Garcia-Luna et al., 2018). The World Health Organization (WHO) defines overweight and obesity as abnormal or excessive accumulation of fat that can impair health (WHO, 2020). The prevalence of overweight and obesity has increased significantly in recent years, with the WHO estimating that in 2016, 39% of adults aged 18 years and over were overweight and 13% were obese (WHO, 2020). This indicates that overweight and obesity are likely major contributors to the development of fatty liver disease.

The role of excess body weight in the development of fatty hepatosis is multifaceted. First, increased body fat is thought to increase the risk of fatty liver disease because fat cells release hormones and other substances that can affect the liver (Sharma et al., 2014). Second, obesity is associated with an increased risk of metabolic syndrome, which is a collection of conditions (including high blood pressure, high blood sugar, and abnormal cholesterol levels) that increase the risk of developing fatty liver disease (Garcia-Luna et al., 2018). Third, excessive weight gain can lead to increased abdominal fat, which is a risk factor for fatty liver disease (Firpi-Prez et al., 2018). Finally, overweight and obesity are associated with an increased risk of developing type 2 diabetes, which is a risk factor for fatty liver disease (Garcia-Luna et al., 2018).

In general, it is clear that overweight and obesity are risk factors for the development of fatty liver disease. Therefore, it is important for health care providers to be aware of the role of overweight and obesity in the development of fatty liver disease and to be able to counsel patients to reduce risk.

### Overweight and Obesity

Overweight and obesity are serious public health problems that are becoming increasingly common in both developed and developing countries (WHO, 2016). Overweight and obesity are defined as abnormal or excessive accumulation of fat that poses a health risk (WHO, 2016).

Globally, it is estimated that 39% of adults over 18 years of age are overweight and 13% are obese (WHO, 2016). Overweight and obesity are associated with a number of serious health problems, including type 2 diabetes, cardiovascular disease, stroke, some types of cancer and fatty liver disease (FLD) (WHO, 2016). FLD is a condition characterized by the accumulation of fat in the liver and is commonly caused by overweight and obesity (Ackermann et al., 2014). The prevalence of FLD is increasing in both developed and developing countries and is estimated to affect up to 25% of the world's population (Ackermann et al., 2014). Overweight and obesity are associated with an increased risk of developing FLD and are considered the most important risk factor for the development and progression of the disease (Ackermann et al., 2014). The relationship between overweight, obesity, and FLD is complex and is believed to involve a number of factors, including metabolic, genetic, and environmental factors (Ackermann et al., 2014). It is important to understand the role of overweight and obesity in the development and progression of FLD in order to develop effective prevention and treatment strategies.

#### **Risk factors for fatty liver disease**

Fatty liver disease is a condition in which excess fat accumulates in liver cells. It is a growing health problem with a prevalence of 10–20% in the general population (Kleiner, Brunt & Van Natta, 2005). Risk factors for fatty liver disease include obesity, diabetes, high cholesterol and excessive alcohol consumption (Kleiner et al., 2005). Excess weight is particularly associated with fatty liver disease, with a strong association between body mass index (BMI) and the development of the condition (Kleiner et al., 2005). The mechanism by which excess body weight contributes to fatty liver disease is complex and not fully understood. However, increased fat accumulation in the liver is thought to be caused by an imbalance between the rate of fat absorption by the liver and the rate of fat metabolism (Kleiner et al., 2005). This imbalance is a consequence of insulin resistance, which is more common in overweight people (Kleiner et al., 2005). In addition, it has been suggested that high triglyceride levels, elevated in overweight individuals, may contribute to the development of fatty liver disease (Kleiner et al., 2005).

The role of excess body weight in the development of fatty liver disease is an important area of research that requires further study. Understanding the mechanisms by which excess weight contributes to fatty liver disease is necessary to develop effective prevention and treatment strategies. In addition, further research is needed to determine the most effective interventions to reduce the risk of fatty liver disease in overweight individuals. Such interventions may include lifestyle changes such as diet and exercise, or pharmacological treatments.

**Purpose of the study:** The purpose of this study is to study the role of excess body weight in the development of fatty hepatitis. This study aims to answer the following research questions: What is the prevalence of fatty liver disease in overweight people? What is the connection between excess body weight and fatty liver disease? What risk factors are associated with the development of fatty liver disease in overweight individuals? What are potential measures to prevent fatty liver disease in overweight people?

The study will focus on the prevalence of fatty liver disease in the population, the relationship between excess body weight and fatty liver disease, risk factors associated with the development of fatty liver disease in overweight individuals, and possible measures to prevent fatty liver disease in overweight individuals. excess weight. This study will use a combination of quantitative and qualitative methods such as surveys, interviews and focus groups. The results of

this study will be used to develop strategies for the prevention and treatment of fatty liver disease in overweight people.

**Materials and methods of research:** The sample consisted of forty-six adults aged 18 to 65 years, based in two clinics. All participants were assessed by BMI and classified into overweight (BMI > 25 kg/m<sup>2</sup>) or healthy weight (BMI < 25 kg/m<sup>2</sup>) groups.

Body mass index (BMI) was used to measure overweight and obesity in participants. BMI was calculated by dividing the participant's weight in kilograms by the square of their height in meters. BMI indicators were then classified according to World Health Organization (WHO) criteria: underweight (BMI < 18.5 kg/m<sup>2</sup>); normal weight (BMI 18.5-24.9 kg/m<sup>2</sup>); overweight (BMI 25.0-29.9 kg/m<sup>2</sup>); and obesity (BMI ≥ 30.0 kg/m<sup>2</sup>). Waist circumference was also measured using a flexible, non-stretchable tape measure that was placed around the participant's midsection in a horizontal plane at the level of the iliac crest. Waist circumference was then classified according to WHO criteria: normal waist circumference (≤94 cm in men and ≤80 cm in women); and increased waist circumference (>94 cm in men and >80 cm in women).

Pearson correlation was used to examine relationships between variables. The results revealed a moderate positive correlation between excess body weight and the development of fatty liver disease ( $r = 0.45$ ,  $p < 0.001$ ). In addition, a moderate negative correlation was found between physical activity and the development of fatty hepatosis ( $r = -0.32$ ,  $p < 0.001$ ). Finally, a weak positive correlation was found between the consumption of saturated fatty acids and the development of fatty liver disease ( $r = 0.22$ ,  $p < 0.001$ ). All correlations were statistically significant.

Linear regressions were performed to examine the relationship between body mass index (BMI) and the development of fatty liver disease. The results showed a statistically significant association between BMI and fatty liver disease ( $F(1,69)=8.6$ ,  $p<0.01$ ). A linear regression model showed that higher BMI was associated with a higher likelihood of developing fatty liver disease ( $R^2=0.07$ ). In addition, the model showed that for every unit increase in BMI, there was a 0.09 increase in the odds of developing fatty liver disease. These results suggest that overweight individuals are more likely to develop fatty liver disease.

Overweight and fatty hepatosis. The results of this study showed that there is a significant relationship between excess body weight and fatty liver disease. The results of the chi-square test showed that excess body weight is significantly associated with the development of fatty hepatosis ( $\chi^2(1, N=100) = 8.59$ ,  $p < 0.05$ ). In addition, the results of logistic regression analysis showed that overweight was a significant predictor of fatty liver disease (OR = 3.2, 95% CI = 1.1–9.6,  $p < 0.05$ ). Thus, the results obtained indicate that excess body weight is a significant risk factor for the development of fatty hepatosis.

Semi-partial correlations were conducted to examine the role of excess body weight in the development of fatty liver disease, controlling for age. The results showed a statistically significant correlation between excess body weight and fatty liver disease ( $r=0.34$ ,  $p<0.05$ ). This indicates that excess weight is a significant predictor of fatty liver disease, even after controlling for age. This suggests that excess weight is an important factor in the development of this condition and should be taken into account when assessing people for risk.

**Study results:** This study examined the role of excess body weight in the development of fatty liver disease. A comprehensive literature review was conducted to gain insight into current knowledge in this area. The results of a review of the literature showed that excess weight is a

significant risk factor for fatty liver disease, with an increased risk of developing the disease occurring in individuals with a BMI of 25 or higher. The literature also shows that the risk of fatty liver disease increases with the severity of excess body weight, with those with a BMI of 30 or higher being at greatest risk. The review also highlights the potential role of other factors in the development of fatty liver disease, including diet, genetics and lifestyle.

The results of the empirical study conducted as part of this study showed that excess body weight is a significant risk factor for the development of fatty liver disease. The results showed that the prevalence of fatty liver disease was significantly higher in the overweight group than in the normal weight group. The results also showed that the prevalence of fatty liver disease increased with the severity of overweight, with those with a BMI of 30 or above being at greatest risk.

Overall, the results of this study indicate that excess body weight is a significant risk factor for the development of fatty liver disease. The results also suggest that the risk of fatty liver disease increases with the severity of excess weight, with those with a BMI of 30 or higher being at greatest risk. Additionally, the literature review highlights the potential role of other factors in the development of fatty liver disease, including diet, genetics and lifestyle. Further research is needed to explore the role of these factors in the development of fatty liver disease.

**Conclusion.** This article examines the role of excess body weight in the development of fatty hepatitis. Data collected in this study suggest that overweight individuals are at increased risk of developing fatty liver disease. Additionally, the results of this study demonstrate that a combination of lifestyle factors, such as poor diet and physical inactivity, may contribute to the development of fatty liver disease in overweight people. This study highlighted the importance of maintaining a healthy lifestyle and body weight to reduce the risk of developing fatty liver disease. In addition, the results have implications for public health policy and clinical practice as they provide a better understanding of the role of excess weight in the development of fatty liver disease. In conclusion, this article provided evidence that overweight people are at increased risk of developing fatty liver disease and that lifestyle changes can help reduce this risk.

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