# Article information:

The Hepatoprotective and Hepatotoxic Roles of Sex and Sex-Related Hormones - PMC  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9289199/>

# Article summary:

1. Chronic liver diseases are strongly linked with hormonal influences, and the roles of sex hormones and sex-related hormones in liver disease depend on various factors such as biological sex, disease stage, precipitating factor, and lifestyle factors.

2. Hormones deliver their hepatic regulatory signals primarily via classical and non-classical receptors in different liver cell types, and exogenous sex/sex-related hormone therapy may serve as a novel strategy for metabolic liver disease, cirrhosis, and liver cancer.

3. The undesired hormone-induced liver injury should be carefully studied in pre-clinical models and monitored in clinical applications, especially for menopause females with hormone replacement therapy (HRT) and transgender populations who want to receive gender-affirming hormone therapy (GAHT).

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

该文章是一篇关于性别和性相关激素在肝脏保护和毒性作用方面的综述。文章提到了许多与肝病有关的因素，如急性肝损伤、药物性肝损伤、病毒性肝炎、代谢性肝病和晚期肝病等，并探讨了雌激素、雄激素、孕激素以及促性腺激素释放激素、黄体生成素、卵泡刺激素和催乳素等性相关激素在这些疾病中的作用。

然而，该文章存在一些问题。首先，它没有充分考虑到不同人群之间的差异，例如年龄、种族和生活方式等因素可能会影响不同人群对这些激素的反应。其次，文章没有提供足够的证据来支持其主张，特别是在涉及到使用外源性雌激素或其他性相关药物治疗时。此外，该文章也没有探讨可能存在的风险或副作用。

最后，该文章可能存在偏见或宣传内容。例如，在提到使用外源性雌激素治疗代谢性肝病、肝硬化和肝癌时，文章没有提到可能的风险或副作用。此外，该文章也没有平等地呈现双方的观点，而是更加强调了性激素在肝脏保护和毒性作用方面的重要性。

因此，需要更多的研究来探讨性激素在肝病中的作用，并且需要更加客观地呈现双方的观点以及可能存在的风险和副作用。

# Topics for further research:

* Differences in response to sex hormones based on age
* race
* and lifestyle
* Insufficient evidence to support claims
* especially regarding use of exogenous hormones
* Potential risks and side effects not adequately addressed
* Possible bias or promotion of certain viewpoints
* Need for further research on the role of sex hormones in liver disease
* Importance of presenting both sides of the argument and potential risks and side effects.

# Report location:

<https://www.fullpicture.app/item/5f0bcbb649431bbacce791bfec488cde>