

## Dissection of the Impact of Diabetes Type on Heart Failure across Age Groups: A Systematic Review of Publication Patterns on PubMed

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**Abstract :** Background: Diabetes significantly influences the risk of heart failure. The interplay between distinct types of diabetes, heart failure, and their distribution across various age groups remains an area of active exploration. This study endeavors to scrutinize the age group distribution in publications addressing Type 1 and Type 2 diabetes and heart failure on PubMed while also examining the evolving publication trends. Methods: We leveraged E-utilities and RegEx to search and extract publication data from PubMed using various mesh terms. Subsequently, we conducted descriptive statistics and t-tests to discern the differences between the two diabetes types and the distribution across age groups. Finally, we analyzed the temporal trends of publications concerning both types of diabetes and heart failure. Results: Our findings revealed a divergence in the age group distribution between Type 1 and Type 2 diabetes within heart failure publications. Publications discussing Type 2 diabetes and heart failure were more predominant among older age groups, whereas those addressing Type 1 diabetes and heart failure displayed a more balanced distribution across all age groups. The t-test revealed no significant difference in the means between the two diabetes types. However, the number of publications exploring the relationship between Type 2 diabetes and heart failure has seen a steady increase over time, suggesting an escalating interest in this area. Conclusion: The dissection of publication patterns on PubMed uncovers a pronounced association between Type 2 diabetes and heart failure within older age groups. This highlights the critical need to comprehend the distinct age group differences when examining diabetes and heart failure to inform and refine targeted prevention and treatment strategies.

**Keywords :** Type 1 diabetes, Type 2 diabetes, heart failure, age groups, publication patterns, PubMed

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