

# FAST-HIKING BACKPACK FOR WOMEN

Fast hiking, also known as fast packing, is a relatively new sport where it combines aspects of backpacking and trail running. The goal is to pack minimally and move as efficiently as possible to cover large area and distances outdoors.

## OBJECTIVE

This project aims to understand the problems and challenges concerning fast-hiking backpacks, perform research on what factors and gender differences contribute to the challenge of ill-fitting backpacks for women. Then, based on the insights, to present concepts and/or features that would best solve the matter. Additionally, to be able to provide upper body anthropometric data and recommendations for the client in terms of women specific backpack design.

## RESULTS

As a result, the final design proposes a 25L fast-hiking backpack tailored to the female body with a unique carrying system. The overall size and shape of the backpack is determined based on the anthropometric data of DINED (Dutch) and ANSUR II (American) to fit women of the 5<sup>th</sup> and 95<sup>th</sup> percentile of the proposed body parameters: stature, torso length, chest/waist circumference, and as secondary parameters, hip/shoulder breadth.

The design introduces a strapless system that replaces conventional shoulder straps with stiff, bendable shoulder hooks allowing for freedom of the shoulders, chest, and arms. The hooks will act as a backpack stabilizer and bears little to no weight. The load distribution will be focused onto the contour hip belt with a two-point webbing strap system that is easier to adjust as needed.



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