

## Shower Chair

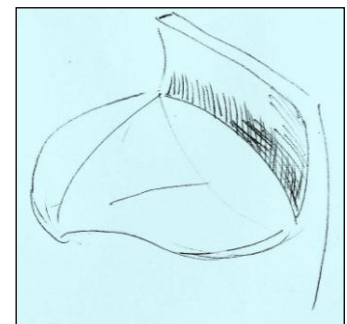
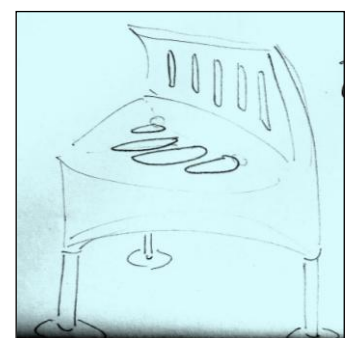
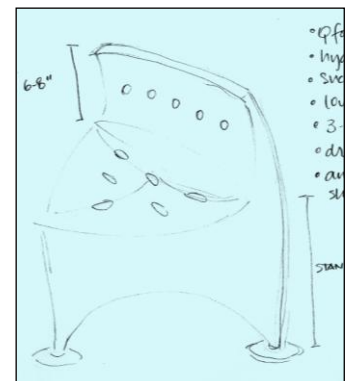
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When showering, amputees need to use a chair. Approximately 1.7 million Americans face the daily challenge of bathing safely. Showering while standing on one leg is dangerous and tiring; shower chairs presently available are typically made of hard plastic and aluminum, cold and uncomfortable for disabled users. I believe a better solution can be produced. Preliminary sketches I have made to demonstrate an improved design are included below.

### FEATURES & BENEFITS

Features and benefits of this improved design include:

- Injection-molded foam, a material with antimicrobial and hydrophilic characteristics. This results in a chair that is more hygienic and safer than typical models currently available. Using this foam, this chair design can be created in a variety of colors.
- Q-foam is a material that is soft yet supportive. Use of this or similar material will result in a more comfortable chair.
- If foam requires additional structural support, an armature of aluminum or other material can be incorporated into the design to meet standard healthcare requirements.
- Suction feet provide greater stability and safety.
- Low back allows freedom of movement.
- Anatomically-shaped seat provides greater comfort and stability.
- 3-legged design provides greater stability on uneven surfaces found in a bathtub or shower than the typical 4-legged design.
- Drainage holes in back and seat prevent pooling of water (note: drainage holes must be placed correctly to optimize comfort).
- Removable/adjustable accessories shelf can be placed on right or left side to accommodate amputee's need. Having bathing amenities close at hand creates a safer showering experience.
- **This functional foam design is more aesthetically pleasing, comes in a variety of playful colors, is more hygienic, safer and more comfortable.**



## THE MARKET

According to the Amputee Coalition of America (quoting an unpublished paper from Johns Hopkins) there are approximately 1.7 million people living with limb loss in the United States. This population will continue to grow with the aging of the US population—54% of limb loss occurs due to diabetes mellitus. Returning veterans are another important target audience, as they are young, active individuals.

A typical shower chair sold in the US is shown to the right. This is the CareGuard Shower Chair, manufactured by Invacare, a leading supplier of home medical equipment. The retail price of shower chairs ranges from \$30-\$75.



## Opportunity Analysis

To determine feasibility of designing and producing this innovative shower chair, an opportunity analysis needs to be conducted. This OA will include investigation of the following:

1. Idea and market: a detailed description of the function and value proposition of the shower chair.
2. Market opportunity: identification of the target market and alignment of value proposition with the target market; description of the competitive advantage of this venture.
3. Management team
4. Timeline and source of capital

## Research Required

### PRELIMINARY PHASE

1. Size of target market (number of people with lower limb loss; does this solution also serve upper limb loss customers?)
2. Materials and manufacturing

### Additional preliminary sketches

