

# Fixed dose delivery pen

## Ergonomics assessment for enhanced user experience

### BACKGROUND AND CHALLENGE

To design a fixed-dose drug delivery pen that comes with a foolproof dose to reduce the risk of user error and improve the overall experience of pen injectors.

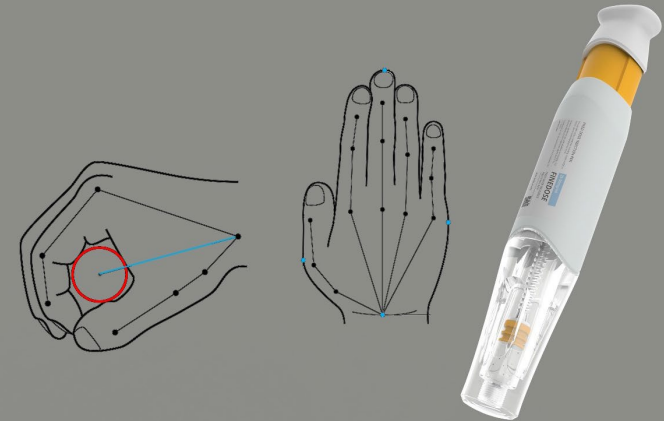
### SOLUTION

- A **Use Task Flow Analysis** was done to assess all use tasks for every user population to determine where a user-related error could lead to a hazard or hazardous situation ending in harm
- **Physical Ergonomics assessment** was done to validate the ergonomics of the device design and user interface
- This assessment was done using permutation and a combination of device usage with respect to human body parts and Anthropometry Dimension Analysis
- Recommendations were drawn from the analysis and the design was further refined to improve the ergonomics

### SCOPE OF WORK

- Task Flow Analysis
- Physical ergonomics assessment
- Design improvement recommendations

### A leading medical device manufacturer



### IMPACT

- The Delivery pen device has been validated for the performance of Osteoporosis patients in carrying out tasks that are critical to the safe and effective use of the device while self-injecting.
- The design has been validated for usability requirements like convenient pull and push force, confirmed dose setting and the effectiveness of risk control measures, which minimize and prevent the occurrence of use errors.