

KNEURO

A BETTER WAY TO GET BETTER



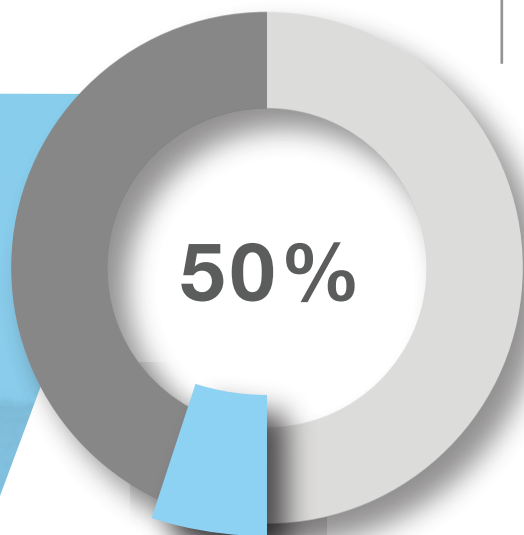
a better way to get better
www.kneuro.com

EPA EPA EPA

Kneuro Recovery

Kneuro is a product, service and brand which reimagines how we address physical therapy according to changing generational perceptions.

Physical therapy is broken.



of Americans over the age of 18 develop a musculoskeletal injury that lasts longer than 3 months. Only 8% currently utilize outpatient physical therapy.



The average outpatient course of care is 7 to 10 sessions. Only 30% of those who attend therapy are fully adherent to the plan.

\$250,000

Average amount of money lost annually, per clinic, due to patients not completing their course of care.

A LOST MARKET

Only 3% of 160,000,00 adults with musculoskeletal injuries complete an adequate course of rehabilitation.

“ My experiences have always been so **insincere**, I’m not sure they’re even listening...”

“ What I am against, is **taking time out** of my busy schedule and **paying money** to go do stretches and exercises somewhere else **other than the comfort of my home** or after a workout at the gym. ”

“ I get a sheet of exercises and it stops there, it’s **not a very personal** experience.”

THE PROBLEM

Physical therapy is not flexible or personal, two qualities which are demanded by modern consumers.

Product

Enable patients to practice physical therapy from the comfort of their home.

Brand

Reposition the therapy office as a place we actually want to visit.

Digital Platform

Engage patients, provide meaningful data and create a more personal experience.

PATIENT PERSONAS

In depth personas were created to represent the primary generations utilizing physical therapy services.

Can't Stop Carl
Primary User

Occupation: Retired School Teacher
Born: July 20th, 1953 (Age 62)
Lives: Tacoma, WA
Household: Lives with wife, Deborah

"I didn't spend half my life working to spend the next half on the couch! I'm chasing down dreams now, checking items off the bucket list, and looking for anything to keep this old body moving."

Motivated Meghan
Primary User

Occupation: Student, University Sophomore
Born: February 7th, 1996 (Age 20)
Lives: Syracuse, NY
Household: Shares an apartment with roommates

Carl's story...
Carl recently retired from 40 years of dreams, competing in endurance races is his osteo arthritis, which has been a challenge, weekly trips to physical therapy.

Brands
DELL OUTBACK STEAKHOUSES

User Type : Baby Boomer

- Envision technology and innovation as required
- Tend to be more positive about authority, hierarchy and tradition
- Their aging will change America almost incomprehensibly. They are the first generation to use the word "retirement" to mean being able to enjoy life after the children have left home.
- Instead of sitting in a rocking chair, they go skydiving, exercise and take up hobbies, which increases their longevity.

What it's like to be Meghan

Meghan's Life

Products She Loves

Meghan's story

Meghan is a sophomore at Syracuse University, majoring in Journalism and competing on the varsity track team. Meghan has a history of being injury prone, and is currently recovering from an ankle sprain. Unfortunately, this injury comes late in the season, with conference championships just around the corner, and her absence leaves the teams chances at a conference title in jeopardy. Currently, Meghan's trainers have her performing rehab exercises and low impact exercises.

Brands
NIKE WHOLE FOODS APPLE TARGET amazon.com CALPOTEL

User Type : Millennial

- They schedule everything
- Grew up in a digital environment, they get all of their information and most of their socialization from the internet
- Envision the world as a 24/7 place; want fast and immediate processing
- They have been told over and over again that they are special, and they expect to be treated that way
- With unlimited access to information they tend to be assertive with strong views

Wearables

- fitness monitor
- smart phone
- GPS watch

Wearables

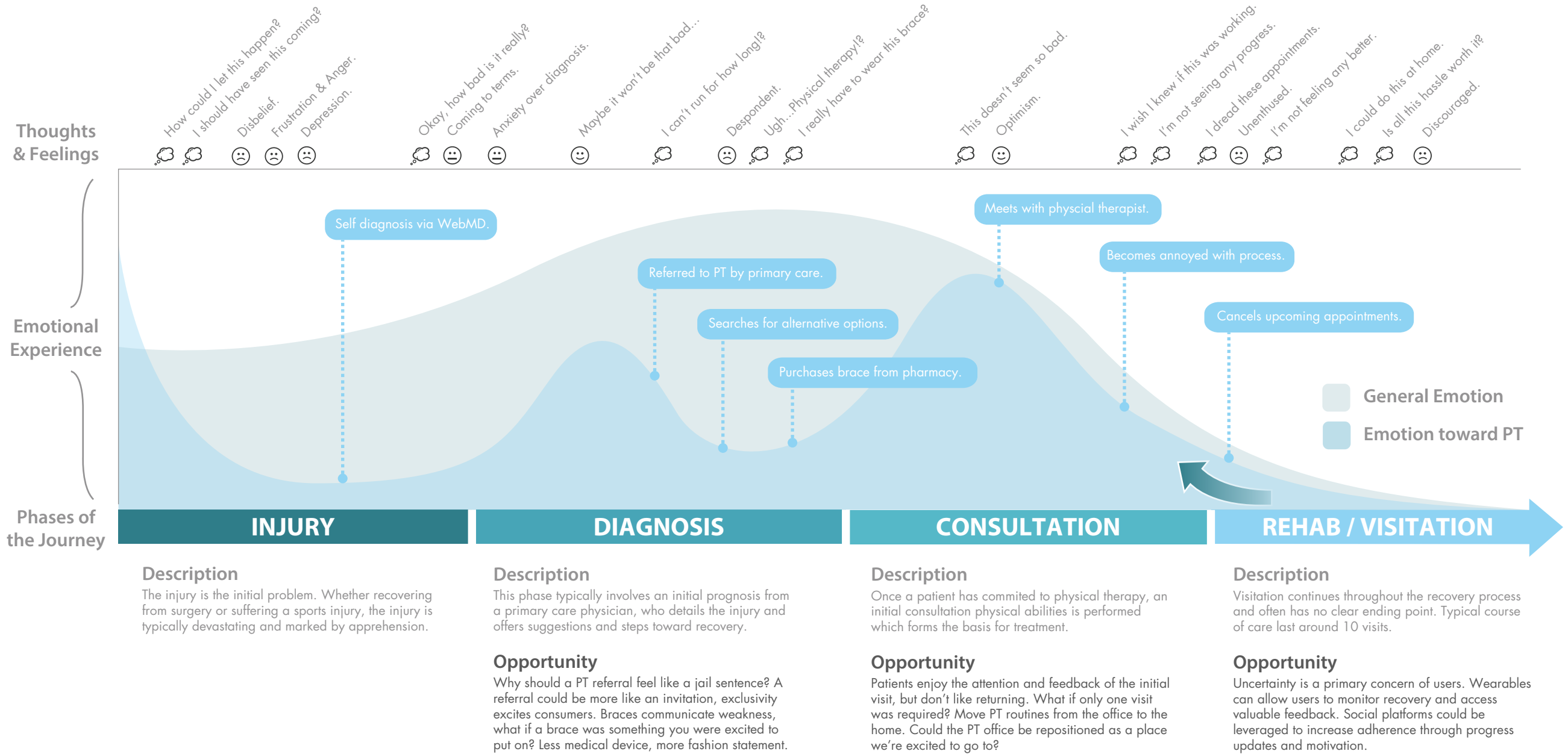
- heart rate monitor
- smart phone

TARGET USERS

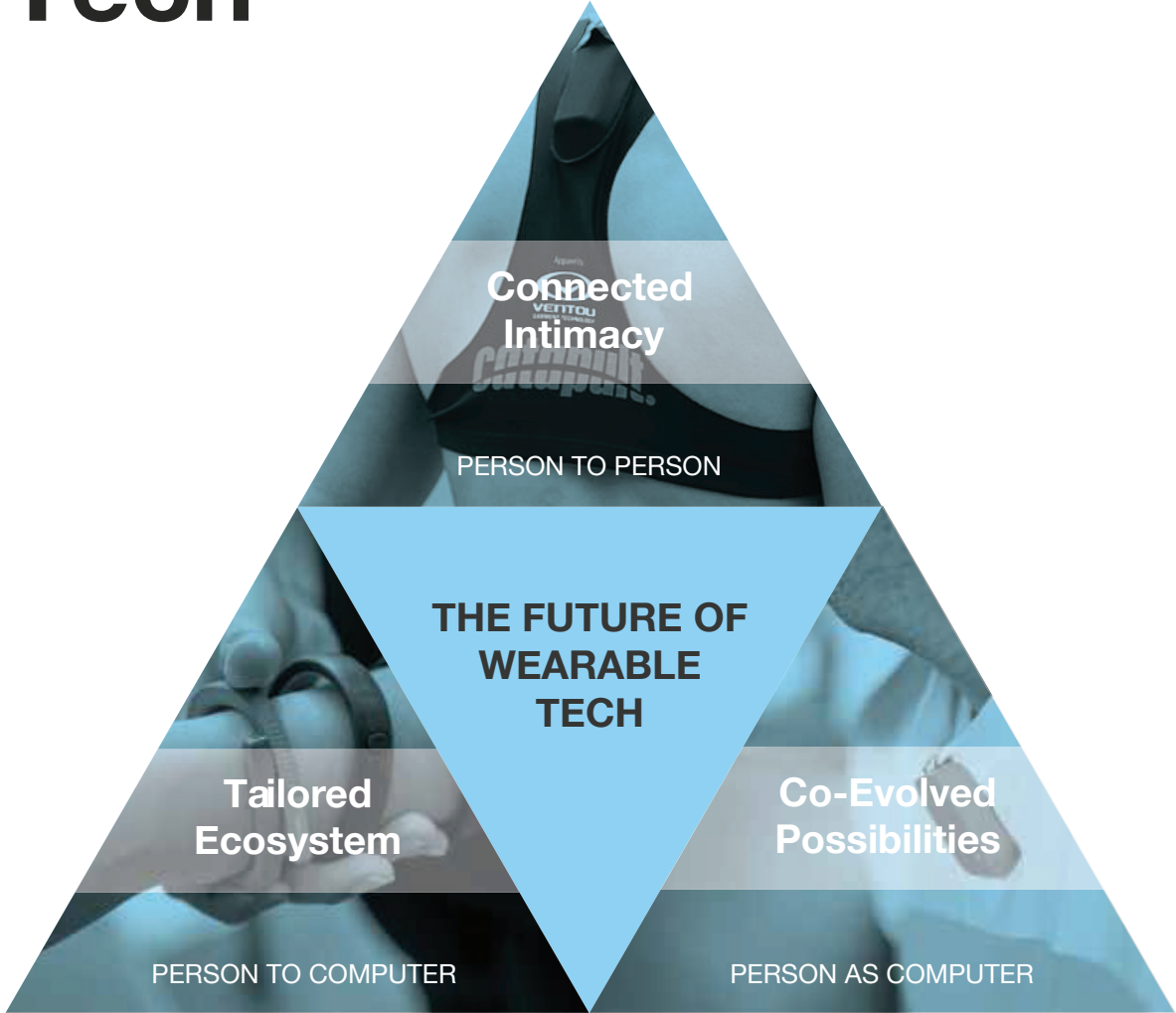
Millenials pushing harder than ever and boomers opting for a more active retirement emerged as the two main users types.

EXPERIENCE MAPPING

User experiences were compiled and mapped to pinpoint opportunities for improvement.



Forecasting Wearable Tech



BIO TECH FUSION

We can expect deeper integration, which points to a future of ubiquitous computing merged with biological systems.

SYNCED LIFESTYLE

Automated interactions will help streamline specific tasks creating new expectations around the flow of daily life.

ORGANIC COMPUTING

Wearables responding to broader range of human inputs from gestures to biometrics, leading to more natural communication.

HUMAN ENHANCEMENT

Assistive technologies that are capable of both restoring and augmenting existing senses and abilities.

PERSONALIZED CONTEXT

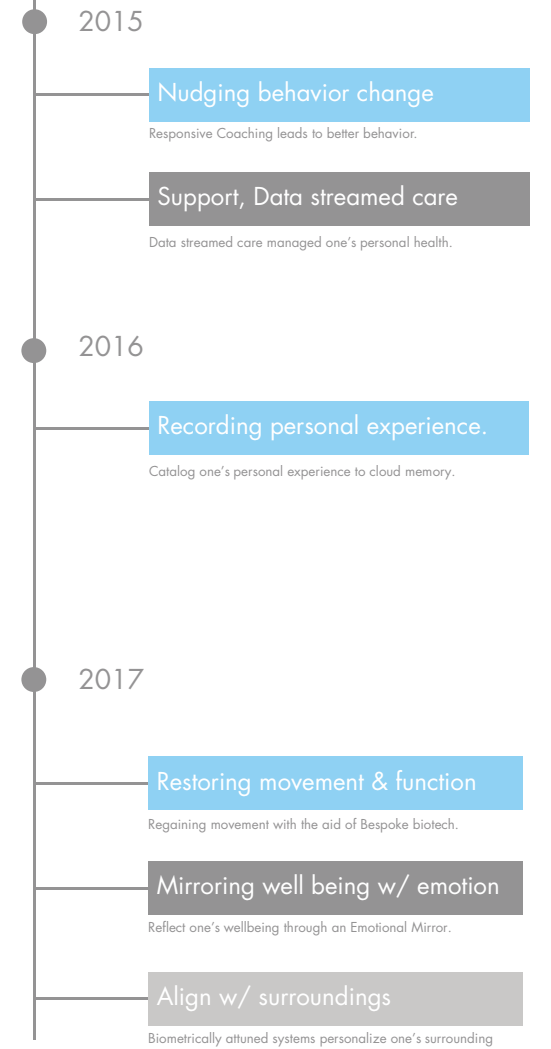
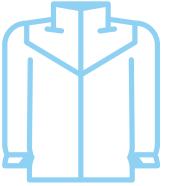
Self aware systems can facilitate connected experiences that deliver greater meaning and relevancy into people's lives.

HEALTH EMPOWERMENT

A more holistic view of health can contribute to a model of prevention, early diagnosis and continuous care.

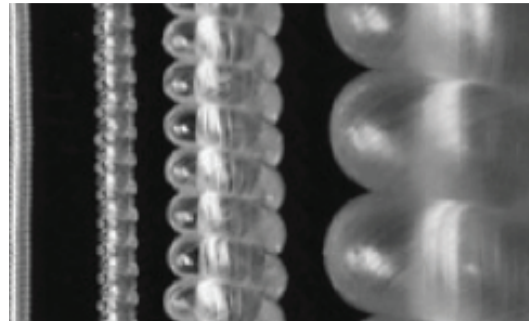
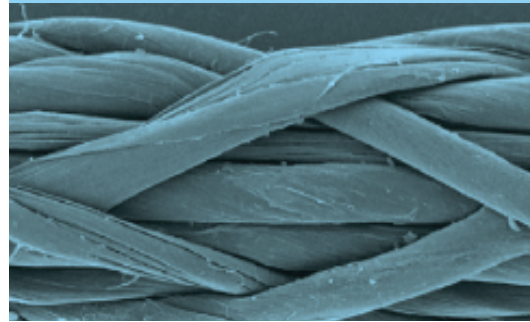
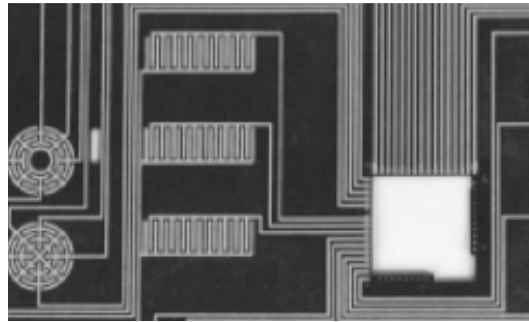
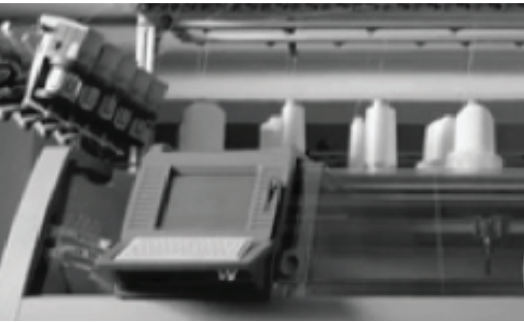
FUNCTION FORECAST

Wearables as clothing



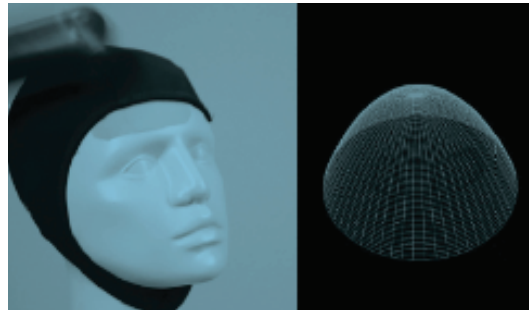
Material Research

A grouping of materials and technology was arranged to ensure the feasibility of an actuated brace.



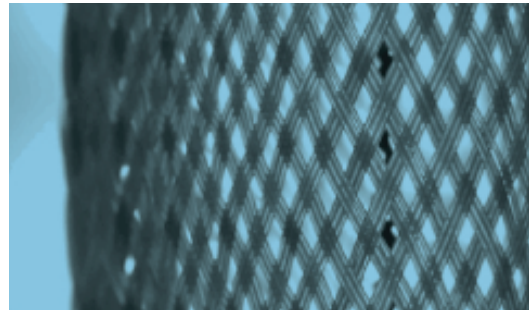
Flat Knitting:

Knit potentially anything, such as high strength fibers, sensors and electronics.



Carbon Nano Yarn:

Filament which can contract and compress on command, mimicking muscle movement.



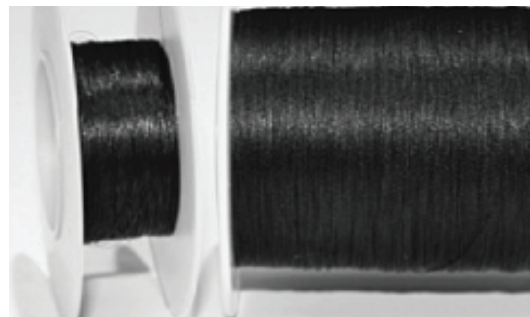
Thermoelectric Fabric:

Fabric which can harvest energy from a person's body heat.

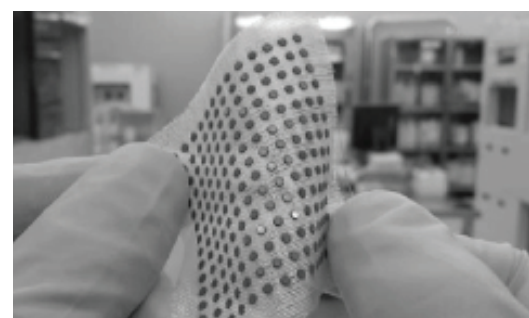
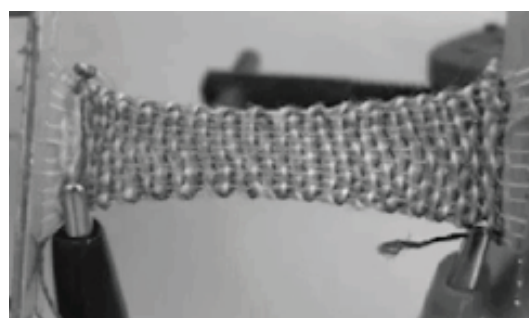
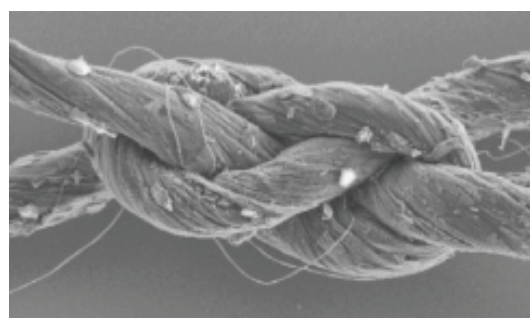
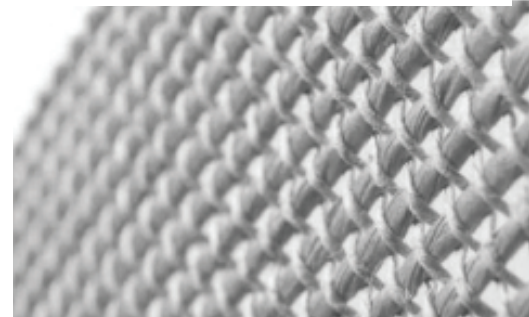


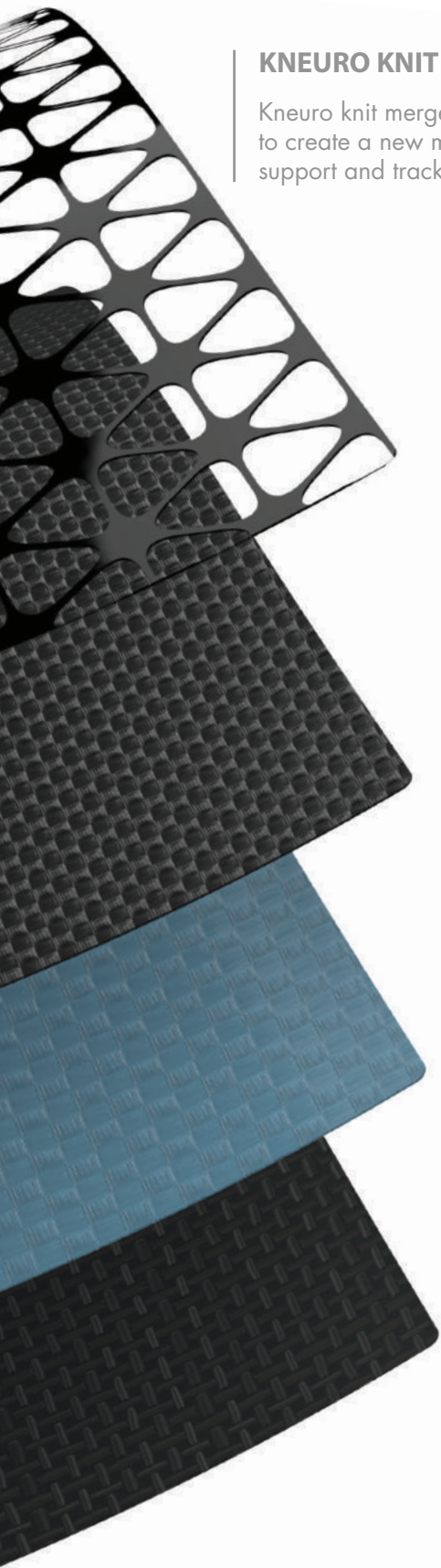
BeBop Sensors:

Comprehend force, location, size, weight, shape and motion across any shape or size.



An alternative to nanotubes, which modifies fishing line into super strong filaments.





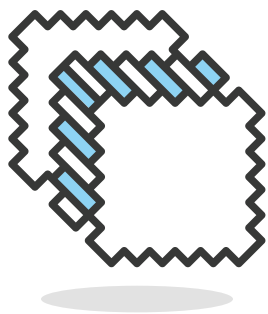
KNEURO KNIT BRACES

Kneuro knit merges emerging fabric technology to create a new medical brace which increases support and tracks recovery.



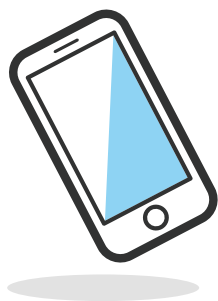
BIOMETRIC DATA COLLECTION

Embedded fabric sensors collect data, like muscular strength and imbalances.



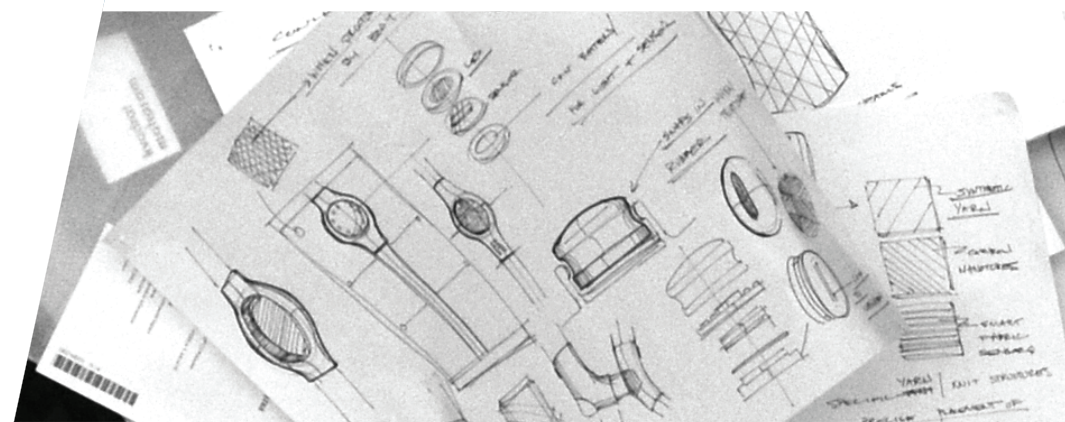
SMART COMPRESSION

Collected data is used to adjust compression according to users specific needs. Compression decreases as strength is regained.



RECOVERY IN REAL TIME

Data collected by the brace is transmitted to the connected platform, where recovery progress is visualized.



MATERIAL INSPIRATION

Kneuro Knit's fabric design drew inspiration from a multitude of disciplines, like architecture and furniture.



FORM INSPIRATION

Mixed materials add a high tech feel, while subtle textures create depth and communicate structural support in a lightweight manner.

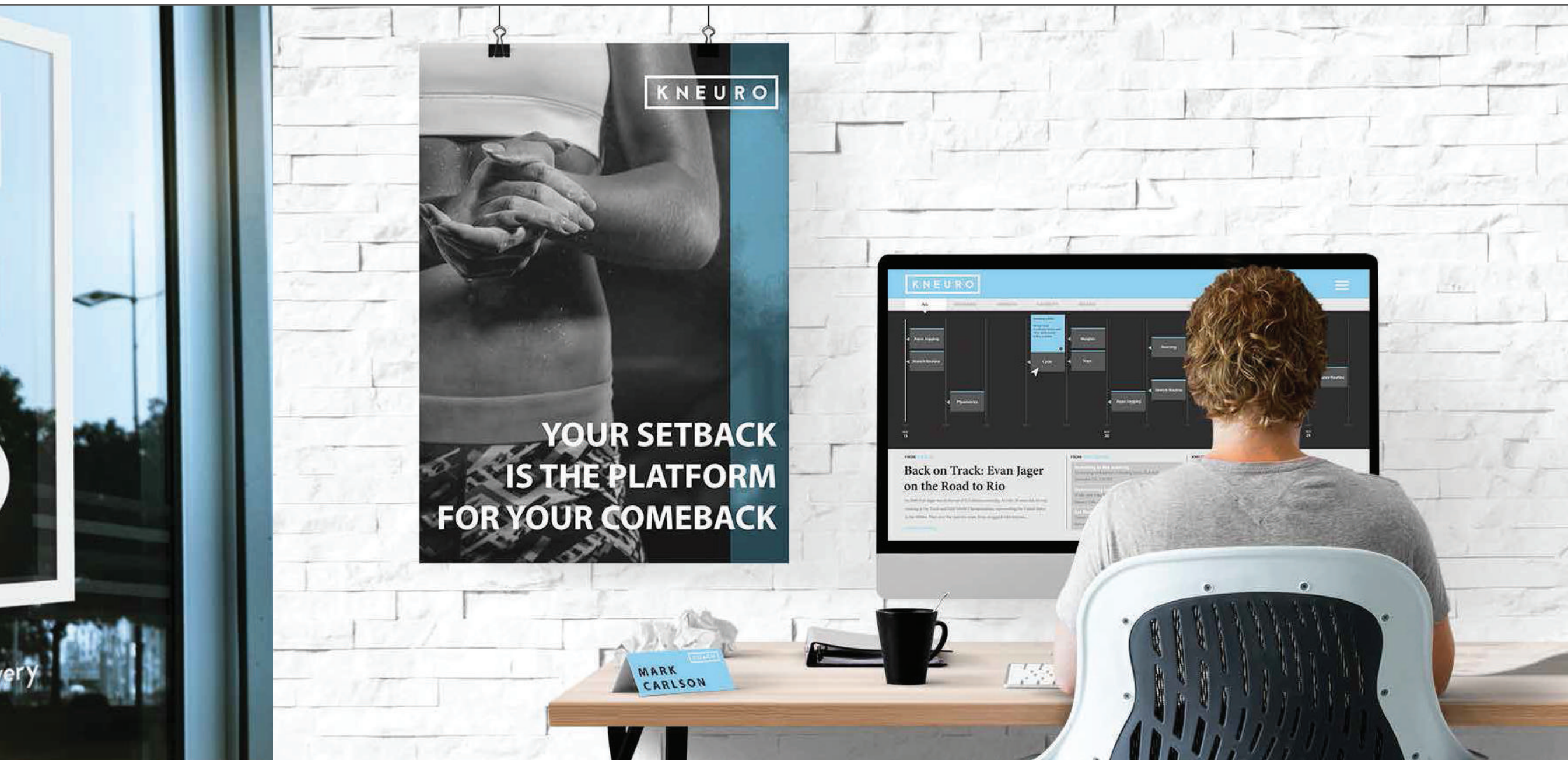
IT STARTS WITH AN INVITE

Patients are no longer sentenced to physical therapy, they are invited to come experience the Kneuro community.

DON'T CALL IT AN OFFICE

Kneuro is a place to connect, learn, consult and train. Only one visit is required, but you're welcome back.





COACH, NOT DOCTOR

Personalization starts with people. Practitioners at Kneuro assess patient needs and design a tailored plan for recovery.

PACKAGING

Kneuro Knit braces are "gifted" to patients, rebranding the brace as something you're actually excited to wear.



KNEURO

YOU'LL BE SURPRISED TO KNOW HOW FAR
YOU CAN GO FROM THE POINT WHERE YOU
THOUGHT IT WAS THE END...

Neuro Connect provides you with quick access to important treatment information, and creates a platform to share progress.

Neuro Knit identifies muscular imbalances and generates a rehabilitation routine to strengthen the affected area.

Smart fabric sensors and Nanofibers work together to provide active bracing and compression, moving with you, not against.

01

Kneuro Connect



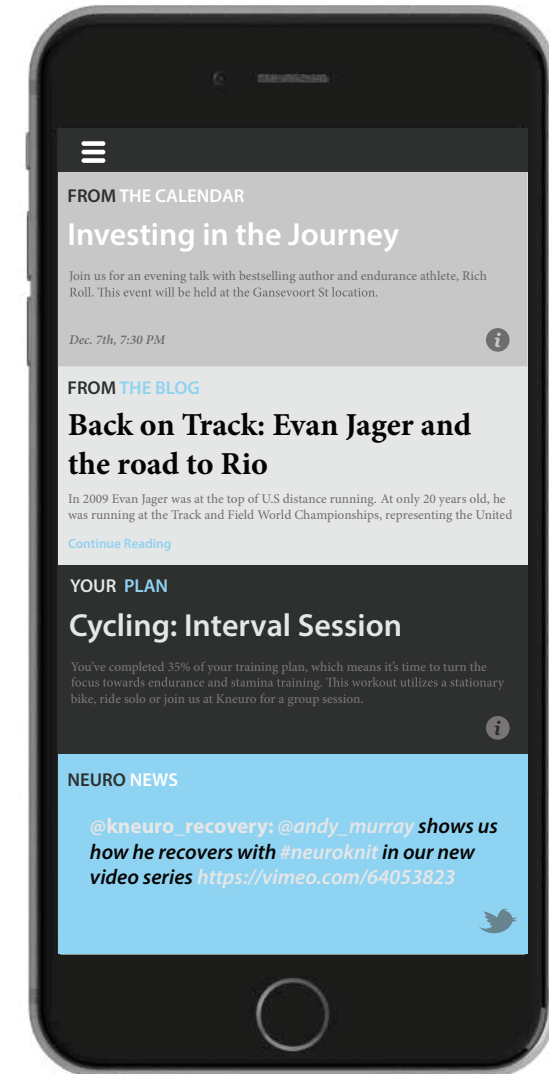
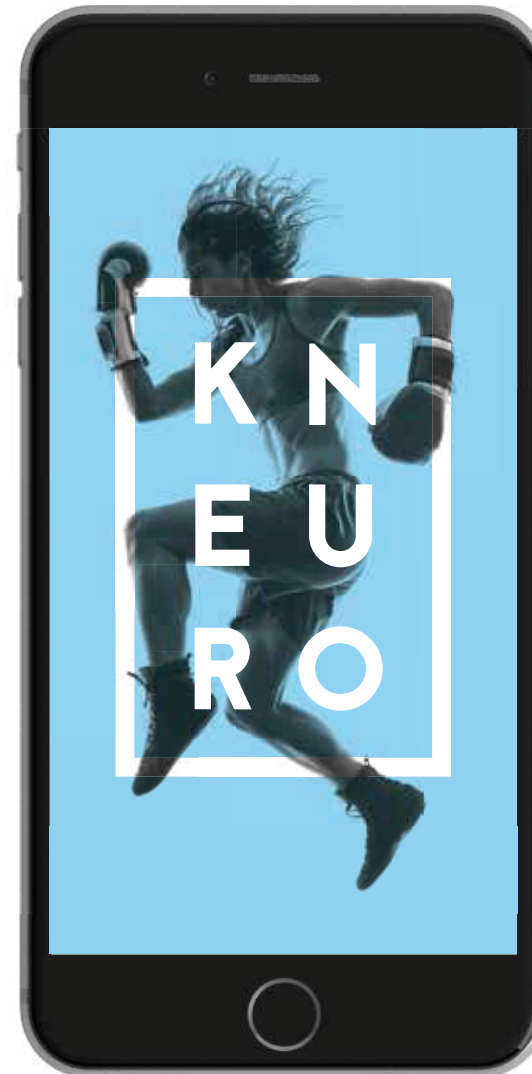
KNEURO

02

Kneuro Knit

THE APP

Patients can monitor recovery, share progress, be inspired and learn about an injury via the Kneuro mobile app.



ONLINE PLATFORM

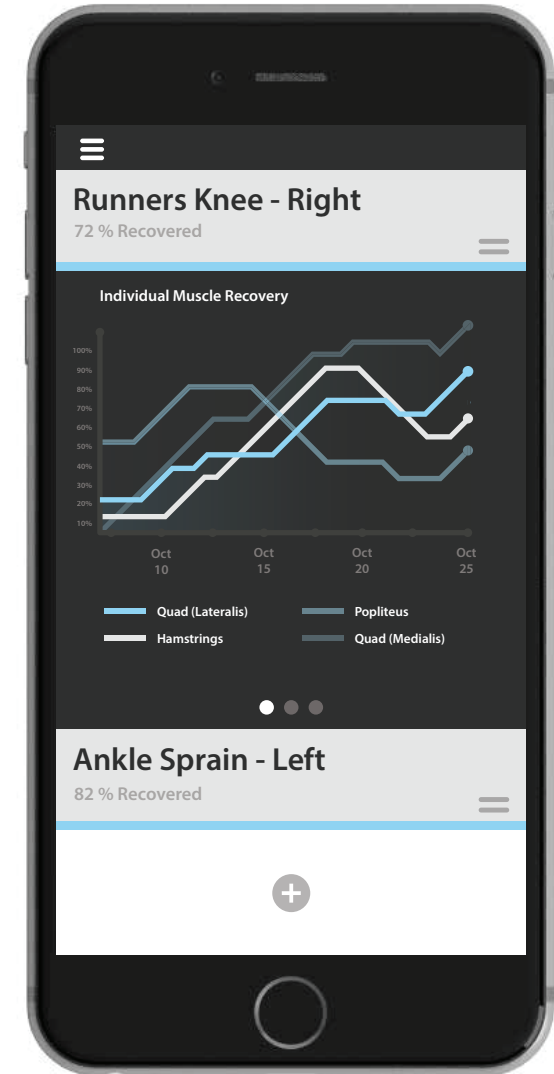
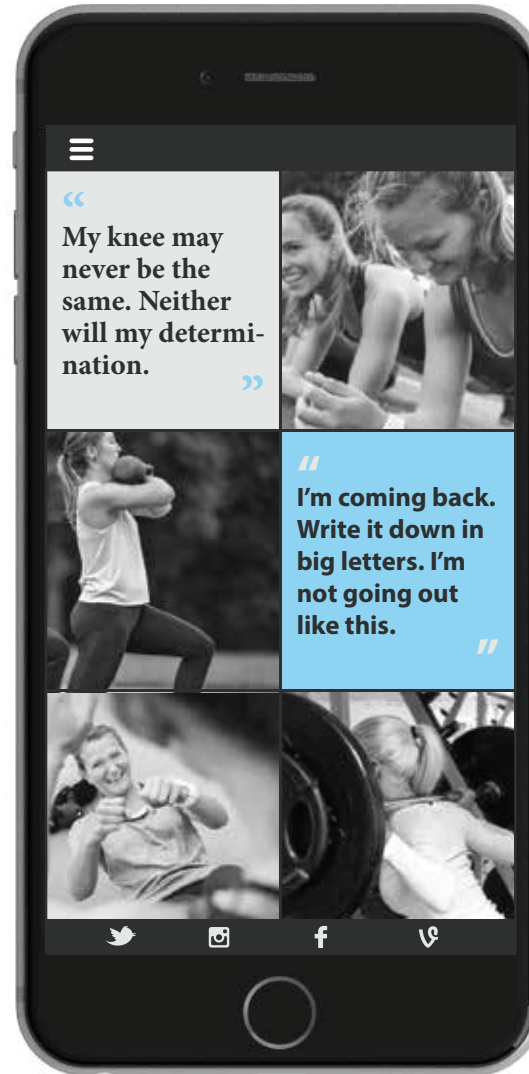
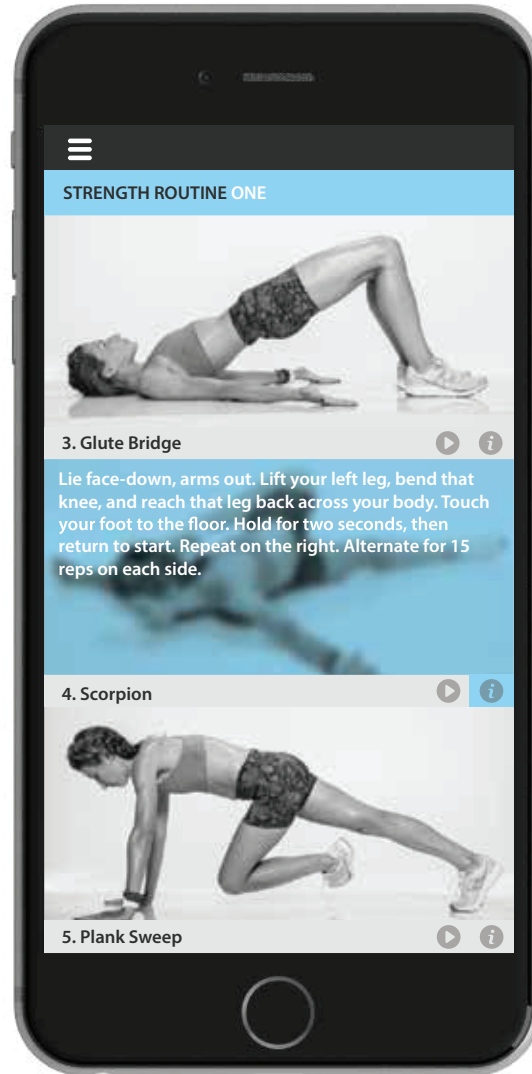
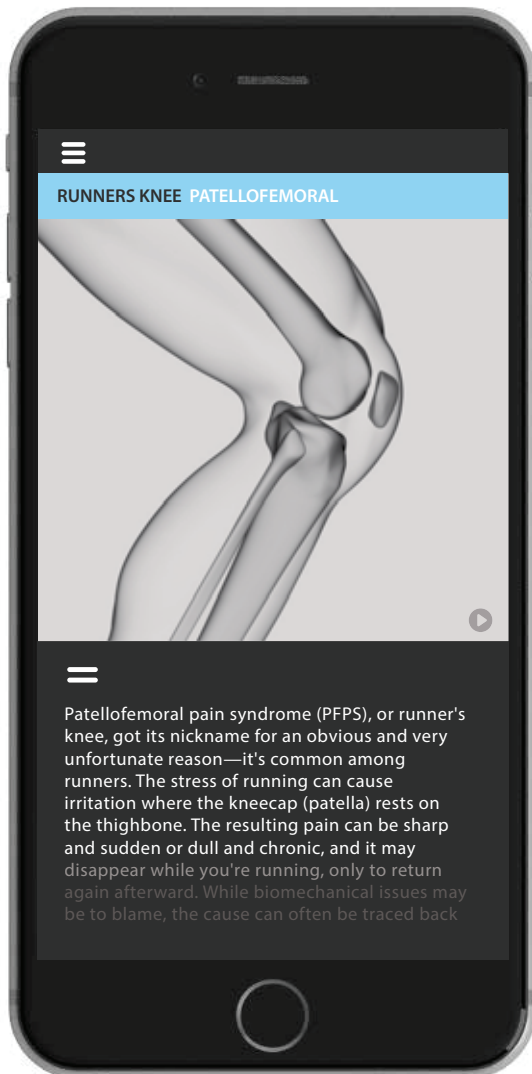
Manage progress and track recovery on Kneuro.net, the site is regularly updated with new plans by Kneuro coaches.

VIDEO WORKOUTS

Patients can be guided through their individual workouts, step by step with video instruction.

PROGRESS UPDATES

Updates provides muscle data so users know exactly how close they are to full recovery.



SHARING

We're more likely to follow through when held accountable. Sharing updates via social media increases course of care adherence .

