

# **KFORCE**

Connected solutions for rehabilitation and sports professionals





MEASURE PROGRESS

## **KFORCE**

With KINVENT technologies, analyze your patients' strength, motion and balance in real time. With the KFORCE application view connected sensors measurements on your smartphone or tablet. Set-up is quick and easy.

## 1 ASSESSMENT

View patients' performance in real time.



## 2 EXERCISING

Create personalized rehabilitation programs with precise and adapted goals.





## 3 REHAB-GAMING

Make rehabilitation fun, engaging and motivating with targeted rehabilitation games.



## 4 MONITORING

Monitor patients' progress over time with standardized biomechanical analysis criteria.

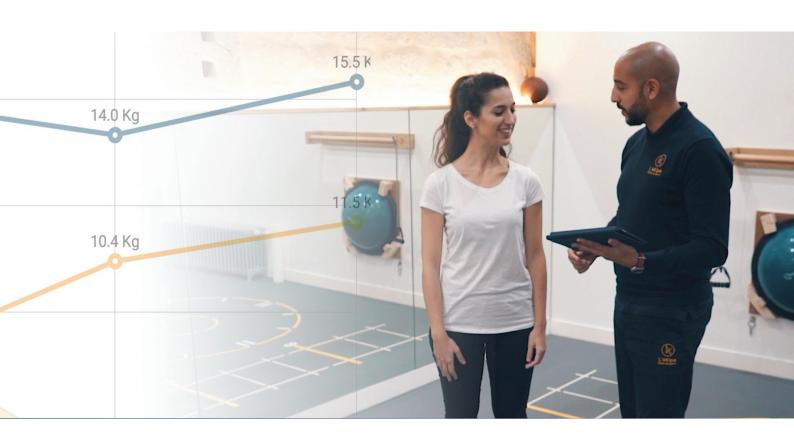




Generate PDF reports in one-click.



## **MEASURE PATIENT'S PROGRESS**





#### Increase effectiveness of your intervention

Assess your patient with precise metrics in less than 20 seconds, in strength, motion and balance.



#### Make smart and targeted training

Create autonomous patient-based training protocols with real-time biofeedback.



#### Use biomechanics digital technologies

As a modern physiotherapist, exploit biomechanics methodologies to enhance your practices.



#### **Build engagement**

Involve your patient with personalized rehabilitation goals and a clear follow-up.



#### Adopt a scientific approach

Obtain precise analytics, benefiting from KINVENT's experience in research and professional sports.



#### Motivate your patients

Progress through rehab-gaming and play as Karl the Kangaroo.





- **Pediatrics**
- **ACL**
- Neurology
- Shoulder pathologies
- Sports performance
- Cervicals

- Vestibular Physical Therapy
- Hand Pathologies
- Pubalgia
- Back-pain problems

#### **ANALYSIS EXAMPLES**

- Lower & upper limbs
- Muscular endurance tests
- Countermotion jump
- Squat Jump
- Drop Jump
- Unipodal jump
- Multiple jumps
- Dynamic Strength Index (DSI)
- Nordic test
- Mccall Hamstrings test
- Shoulder rotator test
- Unipodal/bipodal posture
- Center of Pressure Analysis
- Range of motion
- Kinematics of joints
- Force/Velocity Profile
- Skipping
- Functional analysis of squats
- Antagonist muscles ratio
- Real-time biofeedback

### **BIOMECHANICAL DATA**

- Max strength
- Average strength
- Rate of Force Development (RFD)
- Time to max
- Isometric success rate
- Fatique rate
- Max. angular amplitude
- Weight Distribution
- Stroke of Motion
- Jump impulse quantity
- Jump height
- Power/speed
- Reactive Strength Index (RSI)
- Time on air

## A COMPLETE RANGE OF SENSORS



## • Grip

The **Grip** is a connected dynamometer for grip strength assessment. Get real-time biofeedback and objectify monitoring in max strength, neurological rehabilitation, CNS Fatigue...



#### Link •

The **Link** is a connected pull sensor for isometric force measurements. Perform non-operator dependent measurements on powerful muscle groups (upper and lower limbs, cervicals...). Give autonomy to the patient during muscular workout.



#### Muscle Controller

The **Muscle Controller** is a hand-held and versatile muscle dynamometer. Record your patients results on specific and personalized assessments. Track their progress on maximum strength, endurance and muscle deficit.

#### **Bubble** •

**Bubble** is an innovative and versatile pneumatic dynamometer that turns pressure variation into a measurement of force. Work in a targeted manner on the adductors, knee extension, hand contractions, cervicals ... Adapt the device to each type of airbag equipped with a valve.





### Sens

The **Sens** is a connected electronic goniometer. Measure range of motion in all anatomical planes (shoulder rotators, ankle and knee extension, cervicals, hip rotators...).





#### Plates

Durable and lightweight, the **Plates** are ideal for proprioception assessment and exercising. Measure a patient's static and dynamic balance (posture, squats, jumps...). Perform biomechanical analysis of the center of pressure and force, with real-time biofeedback.





### Deltas

With a high acquisition frequency and optimized robustness, the Deltas are dedicated to advanced biomechanical analysis of sports performance.

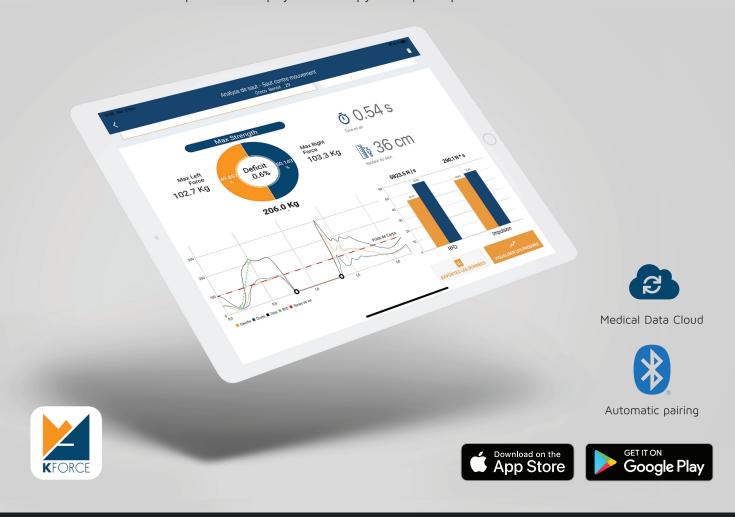
Get help in the return-to-play decision making thanks to jump analysis (CMJ, SJ, DJ, multiple jumps,...), force/velocity profiles, isometric assessments...



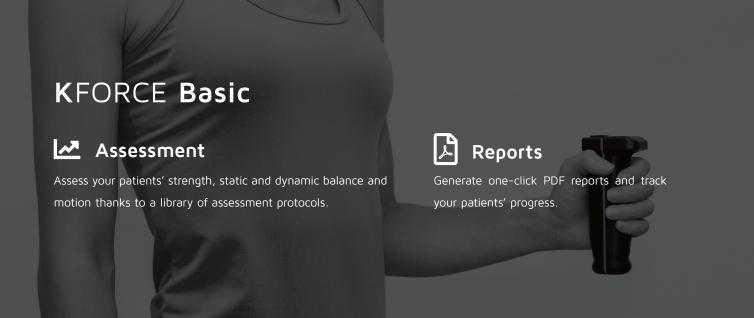
#### KINVENT SOLUTIONS

### **KFORCE APP, CENTRALIZE YOUR DATA**

In collaboration with specialized physical therapists, professional sports clubs, and the biomechanical research sector, the application is constantly evolving in order to allow our users to take advantage of the best assessment protocols in physical therapy and sports performance.



Basic, Pro or PRO+: adopt the offer that suits you



### KFORCE Pro

FOR PHYSICAL THERAPISTS.

## The entire KFORCE Basic offer with the addition of:



#### Cloud Access

Connect your account up to 3 terminals (smartphone/ mobile or tablet)



#### Synchronization

Secure your patients' medical data on an approved health server data host. (GDPR compliant).



#### Personalization

Personalize your account with the colors/logo of your business and add up to 3 professional profiles.

## Turnkey protocols

Benefit from turnkey assessment protocols combining different analysis.

#### **HH** Exercises

Optimize the rehabilitation of your patients by prescribing targeted exercises (Repeated Contractions, Isometric Contraction), determine the strength target, the number of sets and repetitions.

#### Games

Make the rehabilitation process fun and motivating by engaging your patient through targeted rehabilitation games.

### Creation of Assessments/Exercises

Create your own tests and training with our creation tool to adapt your rehabilitation program to each of your patient needs.

## KFORCE Pro+

FOR SPORT PHYSICAL THERAPISTS AND PHYSICAL TRAINERS.

#### The entire KFORCE PRO offer with the addition of:



#### Premium Cloud Access

Connect up to 20 terminals.



#### Personalization



### **Exports CSV**

## Access to premium protocols

- Jump analysis
- Nordic Test
- Mc Call test (leg ischios)
- Dynamic Strength Index (DSI)
- Force/Velocity profile

#### KINVENT PACKS

## **SOLUTIONS ADAPTED TO YOUR WORK**

Select a pack designed with the help of our specialists to perfectly meet your needs or personalize your offer by selecting the sensors best suited to your methods.



Pack Essential

1 YEAR INCLUDED KFORCE APP Pro

Designed primarily for patient assessment. The Essential pack contains:

- App KFORCE Pro
- Plates
- Muscle Controller
- Sens
- Twin Handle
- Baq

#### Pack Rehab

YEAR INCLUDED KFORCE APP



Designed for physical therapists who wish to follow their patients globally. Exercises, assessments... The Rehab pack contains:

- App KFORCE Pro
- Grip
- Sens
- Bubble
- Link

- Plates
- Muscle Controller
- Twin Handle
- Baq





Pack Physio Sport

YEAR INCLUDED PIO+ KFORCE APP

Designed for sports physical therapists and physical trainers. The Physio Sport pack contains:

- App KFORCE Pro+
- Grip
- Sens
- Bubble
- Link
- Plates

- 2x Muscle Controller
- Twin Handle
- 2x Nordic Accessory
- Jump frame
- Bag

### ADOPT A SCIENTIFIC APPROACH

Our methods are developed in collaboration with the best European sports clubs as well as internationally renowned clinics. Here is a selection of the publications available on our website.



Sensor-enabled Functional-Mobility Assessment: An Exploratory Investigation (Golestan et al., 2019)



Retest-reliability and concurrent validity of the pressure air biofeedback device (pab®) for measuring handgrip strength in young healthy adults (Staüber et al., 2019)



An embedded Gait Analysis System for CNS Injury Patients (Pradon et al., 2019)



Changes in the limits of stability induced by weight-shifting training in elderly women. (Nikodelis et al., 2014)



Classification of Soccer and Basketball Players'
Jumping Performance Characteristics: A
Logistic Regression Approach. (Chalitsios et
al., 2019)



Development, validity and reliability of a new pressure air biofeedback device (PAB) for measuring isometric extension strength of the lumbar spine (Pienaar et al., 2016)

## THEY TRUST US

































## MEASURE PROGRESS. BUILD PROGRESS.













info@k-invent.com









+1 (609) 957-5304 +33 4 67 13 00 33 New York, USA Montpellier, France









