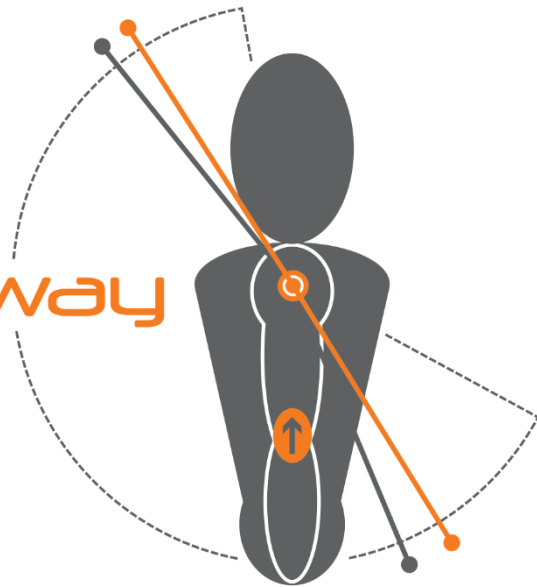




BPMpathway



BPMpathway

Patient User Guide



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Before using BPMpathway, please do the following:

Charge the sensor

Prior to use, charge your tablet and then charge the sensor for at least an hour using the charger lead supplied. Plug the charger lead into your tablet/laptop using a suitable adapter by inserting the charger lead into the socket at the base of the sensor. Charging should only be performed from a tablet/laptop and not from a mains-powered device or USB adapter. The sensor will flash orange to indicate it is charging. ***It is critical that you do not use the sensor while it is charging.***

Downloading the BPMpathway software

If you are using your own touchscreen laptop or tablet, you will have to download the BPMpathway software by following instructions below. If you have a BPMpathway kit, which includes a tablet, the software has already been loaded on the tablet.

To download BPMpathway to your tablet:

- If your tablet has either of the logos shown right for the Apple App Store or the Android Play Store, click on the logo.
- Search for 'BPMpathway'.
- Download the BPMpathway application as directed.
- The BPMpathway icon (shown right) will appear on the start screen when you start your tablet.



If you cannot find the App Store or Play Store logo or cannot download BPMpathway, please go to www.bpmpathway.com/downloads and follow the on-screen instructions for Windows devices:

- Click on the BPMpathway download for your device.
- Download the BPMpathway installer as directed.
- Run the installer, noting where the application is stored.
- ***Please ignore any security warnings about the application during installation. This is due to the limited number of times the application has been downloaded and is nothing to be concerned about.***

A full user guide is available from www.bpmpathway.com/downloads.

If you have any problems or are unsure about what type of device you have, please ask your physiotherapist for help with downloading the BPMpathway software.



Getting started

- Switch on your tablet/laptop and check that it is charged.
- **Ensure that the tablet/laptop is connected to the internet.**
- As soon as you have an internet connection, start BPMpathway by clicking on the orange icon (shown right) to start the application.
- When you click on the icon, you will be taken to the welcome screen.



Connecting the sensor to the software

- The first time you connect the sensor to the software, shake it so that it flashes blue.
- You can change the language of the software by clicking on one of the flags at the top of this screen.
- You can download a digital version of the Instructions for Use (IFU) by clicking on the book logo to go to the IFU download page on the BPMpathway website.
- The screen will indicate that the sensor is trying to connect to the software.
- If the sensor needs charging, a message will appear on the screen and the sensor will flash red. **This is a critical function. Please exit the application, remove the sensor and place it on charge immediately.**
- If the sensor is not detected by the software, a warning message 'No sensor detected' will appear.
- If the sensor cannot connect, the software will time out after 20 secs and goes back to the welcome screen again and you are given the option to exit.
- Check that you have an internet connection and that the sensor is flashing blue before trying to connect again.
- Once the sensor has connected to the software, it will flash green and the screen will change to show the battery level. If the battery level is green the sensor is charged. If the battery level is red the sensor needs charging.
- If you have a message from your physio, you will see an envelope icon.
- Before you can proceed with your test you will be taken automatically to the message centre (see *Sending & receiving messages*).
- If you do not have any messages, click on the **Start** button to go to your test.





How to do your test

- The first time you do your test, you are taken to a screen where a video will play of how to do the test.
- The video will be the same regardless of whether you are doing your right or left limb.
- If you want to watch the video again, press the Video button at the bottom of the screen.
- Press **Next** to move on to the test screen.



Attaching the sensor

- Attach the sensor before starting your test. Secure it using the strap as in the position shown on the screen.
- The sensor icon shows the position of the sensor. The arrow on your sensor should be pointing in the same direction as the sensor icon. For example, if the arrow is pointing to the knee, the top of the sensor must also point to the knee.
- The correct positioning of the sensor is also explained in the instructions on the right-hand side of the test screen.
- When the sensor is connected, the connection icon (shown right) moves as the sensor moves.
- The sensor has different colours to indicate different states:



- Slow-flashing green - sensor is on standby
- Blue - Sensor is ready to connect
- Orange - Sensor is charging
- **Red - When the sensor flashes red, this is critical function. Exit the app, remove the sensor and place on charge immediately**

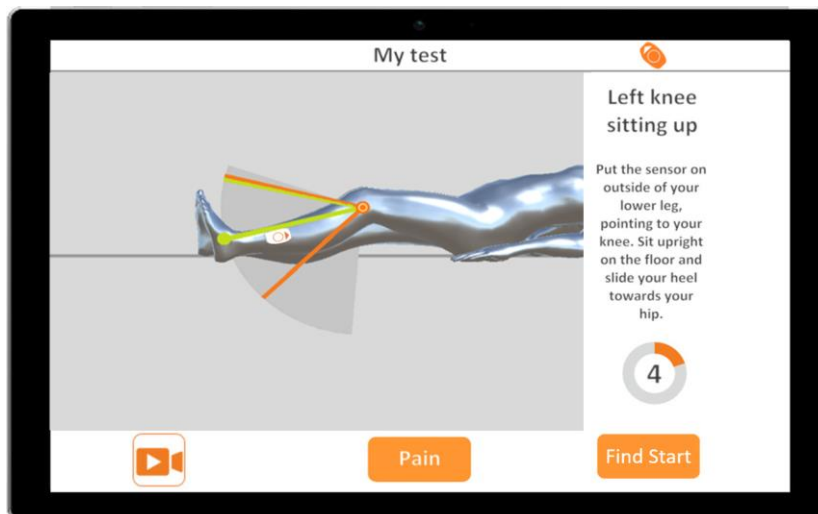
You are now ready to start your test. Please ensure you can see and reach your tablet or laptop, so you can see what to do.



Doing your test

- Press **Find Start** to begin the exercise
- Move your limb to the start point shown by the dotted orange line and wait for a long low tone to indicate you are in the starting zone.
- Maintain this position until a beep sounds and the **Find Start** button disappears. The test movement can now start.
- Move your limb, as your physiotherapist has shown you and/or as shown in the test set up video, back and forth, trying to reach the solid orange lines. Each time you pass through the start position, the number of repetitions will count down and a low 'tick' will indicate the test is being performed correctly.
- Follow the test instructions on the right-hand side of the screen.
- The green line shows the current position of your limb.
- The solid orange lines represent your target range of motion.

Find Start



- Should you experience any discomfort or restriction during the test, you can register this by pressing the **Pain** button. A green diamond will appear on the screen at the point you have marked. You can mark two points in this way. Your physio will then know where you experienced pain.
- Keep going until you hear a short high-pitched beep and you are told that you have finished your test.
- If you want to end the exercise early, you can do so by pressing the **Cancel** button which clears the test results. The test can be restarted by pressing **Start**.

Pain

Cancel



Pain scores

- When you press **Next**, you will be asked to record the level of pain you experienced during the exercise by clicking on the face that best reflects how you felt:



- The face you select is highlighted.
- You can change your selection by pressing a different face.
- Once you are happy with your choice, press **Next**.
- If you have exercises to do, you will be automatically taken to them.

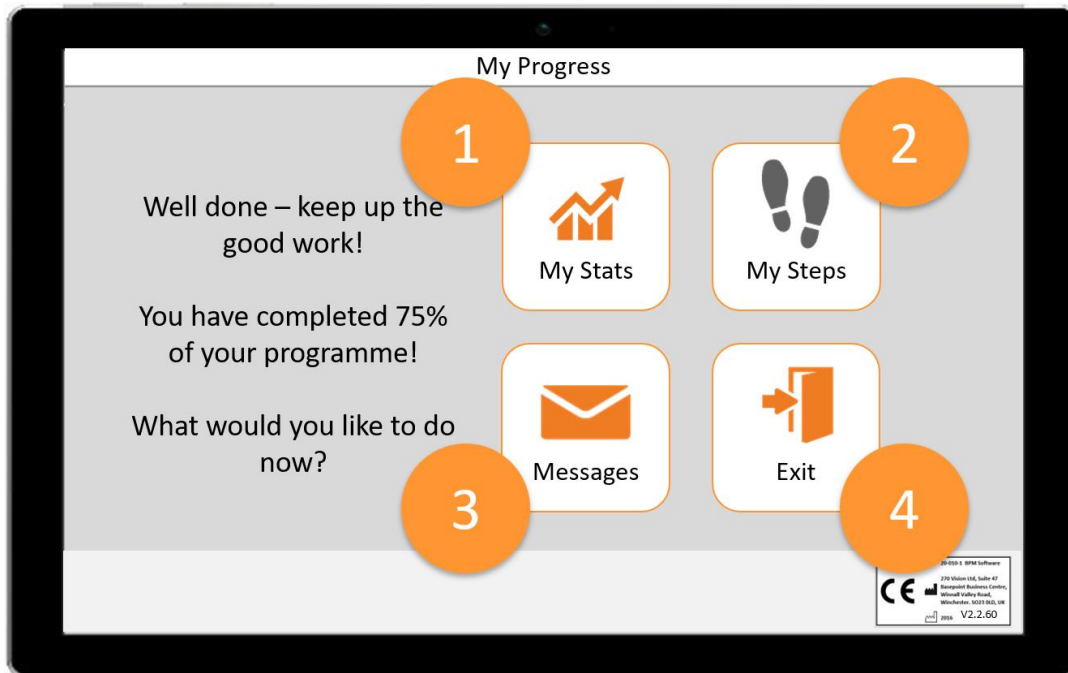
Exercises

- You don't need the sensor to do your exercises, but you can keep wearing it if you wish.
- For each exercise, there is an explanation of how to perform the exercise and a video, which starts automatically.
- The number of repetitions set for you is shown on the right-hand side of the screen.
- Once you have done the exercise, press **Next** to go to your next exercise.



My Progress

After you have completed your exercises, you will be taken to a summary screen – **My Progress**:

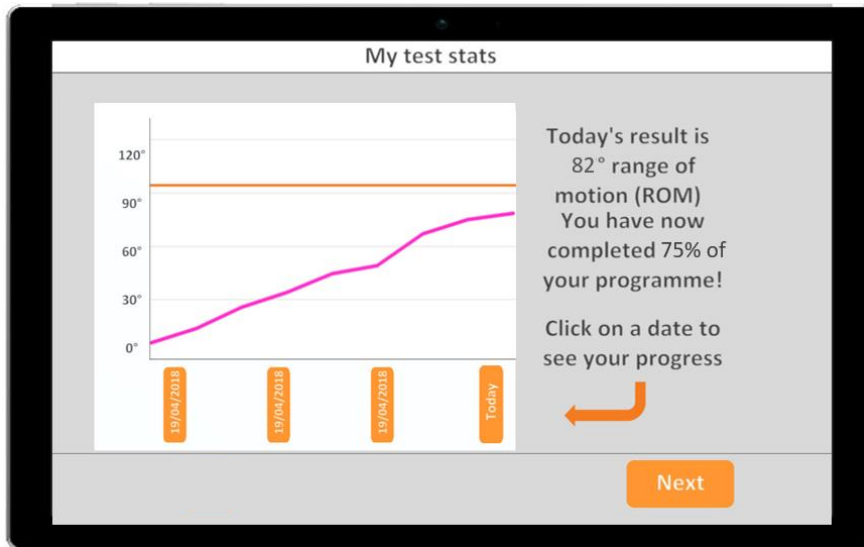


1. To review your results, click on **My Stats**.
2. To review the number of steps you have taken, click on **My Steps** (see *Using the step counter*).
3. To send a message to your clinician, click on **Messages** (see *Sending and receiving messages*).
4. To exit the application, click on **Exit**.

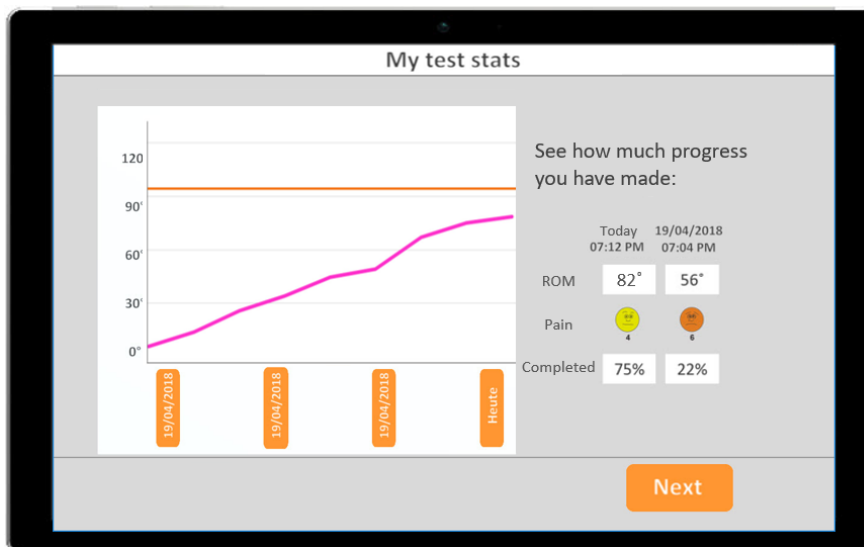
The sensor will automatically shut down after a few minutes of inactivity.



Reviewing your stats



- The pink line shows a plot of your range of motion for your current test since you started it.
- The orange line is your current final target range of motion.
- By clicking on one of the dates along the bottom axis, you can compare today's results with the results from that date.



- After reviewing your progress, press **Next** to return to the **My Progress** screen.



Reviewing your steps



- The purple line shows the total distance you have walked since you started using the sensor.
- By clicking on one of the dates along the bottom axis, you can compare today's results with the results from that date.



- Click on **Next** to return to **My Progress**.

Using the step counter

- The sensor can be used as a step counter when you are not doing your tests.
- The sensor should occasionally blink green. If it does not, it requires charging.
- Place the sensor in your trouser or jacket pocket or handbag.
- If you put your sensor in your handbag and travel by car, please ensure it is placed on a seat.
- The sensor will count the number of steps you take and update your total number of steps the next time you connect it to the software to do your tests.



Sending and receiving messages

How to read a message

- If you have a message from your clinician, you will see an orange envelope icon when you start up BPMpathway.
- You need to read the message before you can start your test.
- Click on the envelope icon to go to your message.
- You will see the message from your physio at the top of the screen.
- If you wish to reply, type your message using the soft keyboard that appears on the screen depending on your type of tablet or laptop.
- If you want to scroll back through your message history, use the scroll bar on the right-hand side of the text box.
- When you are happy with your message, press **Next** and you will be taken back to the screen you came from.



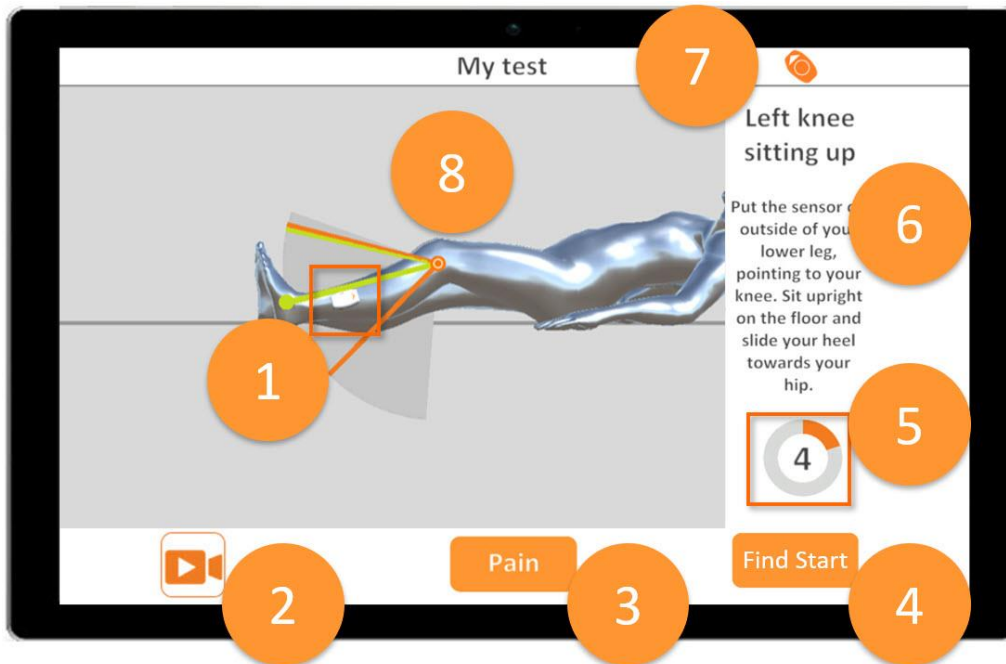
How to send a message

- You can send a message to your clinician by clicking **Messages** on the **My Progress** screen.
- Type your message using the soft keyboard that appears on the screen.
- If you want to scroll back through your message history, use the scroll bar on the right-hand side of the text box.
- When you are happy with your message, press **Next** to return to the **My Progress** screen.

Well done! We hope that you enjoy using BPMpathway during your rehabilitation. If you have any questions about BPMpathway, please contact your clinician.



Test screen



1. **Sensor icon** shows the position and orientation of the sensor. Always make sure that the arrow on the sensor is pointing in the same direction as in the illustration.
2. **Video button** – if you wish to play the test instruction video, press this button. If a button is greyed out, this means it is not available at this time.
3. **Pain button** – if you experience any restriction or discomfort during your test, you can mark two points in this way. A green diamond will appear on the avatar at the point you have marked. If you mark a third, the first one will disappear. Your clinician will then know at what point during the movement you experienced pain.
4. **Find Start button** - press this to start your test.
5. **Number of reps remaining** - each time you pass through the start position, the number of repetitions will count down.
6. **Test directions** - if you have any doubts about how you should do your test, please contact your clinician.
7. **Connection icon** - when the sensor is connected, the sensor icon moves as the sensor moves.
8. **Avatar** - this is a graphical representation of the test:
 - The dotted orange line indicates the start position.
 - The moving green line represents the current position of your limb.
 - The orange lines display the target range for the test.





Additional Information

Instructions for cleaning

If the device becomes dirty, gently wipe with a moist cloth. Do not immerse in water.

Performance issues

If the device appears to be damaged or stops working, please contact your physiotherapist for advice. Do not attempt to open the device or fix it yourself.

Intended environment of use

The device is intended for use in clinical and home environments. Please keep it away from heavy machinery and equipment.




Skills needed

Your physiotherapist will show you how to use and position the device, but if you have any questions, please contact your physiotherapist.

General device information

The BPMpathway device is manufactured by 270 Vision Limited, of Unit 34, Basepoint Business Centre, Caxton Close, Andover, SP10 3FG, UK, registered number 7505941. The sensor serial number can be accessed by your physiotherapist via its unique serial ID if required.

Sensor markings

Sensor name: BPMpro MK2
GS1 code: 5060517690045
CE logo: 
FCC logo: 
WEEE logo: 
IP rating: IP33

Technical Description

BPMpathway contains a wireless BPMpro sensor, which is designed to be used by clinicians and patients in the consulting room or home environment to record the range of joint motion. The BPMpro sensor transmits the motion data to a tablet computer, which runs a companion data visualisation program to display and record the range of motion of patient tests during the clinician-defined programme of tests and exercises.

Disposal of BPMpro sensors (WEEE Directive 2012/19/EU)



At the end of its serviceable life the BPMpro sensor should not be treated as household waste. The sensor should be returned to the supplier for suitable disposal or handed over to a suitable recycling facility for electrical and electronic equipment.



EC Declaration of Conformity (Annex VII)

We, 270 Vision Ltd. of Unit 34, Basepoint Business Centre, Caxton Close, Andover, SP10 3FG, UK, registered number 7505941, declare in our sole responsibility as manufacturer that the products listed in the schedule below meet all the applicable requirements of the Medical Devices Directive 93/42/EEC (amended), and its transposition into national laws.



The BPMpro Mk2 sensor additionally meets all applicable requirements of the European Directive 2011/65/EU (RoHS 2).

Classification: Class I according to Rule 12, Annex IX of Directive 93/42/EEC.


Conformity assessment procedure was performed according to Annex VII of Directive 93/42/EEC.

Applied Standards

- ISO 60601-1 Medical Electrical Equipment
- ETSI EN 300 328 V2.1.1 Wideband Transmission Systems
- ETSI EN 301 489-1 V2.2.0 Electromagnetic Compatibility for radio equipment
- ETSI EN 301 489-17 V3.2.0 Broadband Data Transmission Systems
- IEC 62133:2012 Safety requirements for portable sealed secondary cells

	For 270 Vision Ltd:	
	Name:	Peter Davidson
	Position:	Engineering Director
	Date:	5/11/2020

And as the appointed EU Authorised Representative for 270 Vision Limited:

	Company:	Emergo Europe
	Address:	Prinsessegracht 20 2514 AP The Hague The Netherlands

This declaration is valid for all products manufactured after the date of signature until a new declaration of conformity is issued.

Product Schedule

- BPMpathway system
 - GMDN Classification code: 33652-Clinical goniometer, electric

Consisting of:

- BPMpro Mk2 Sensor
 - Shipped as BPMpathway Sensor Kit

And

- BPMpathway Application, in two forms:
 - BPMpathway Professional Application (v2.2.60)
 - BPMpathway Patient Application (v2.2.60)