

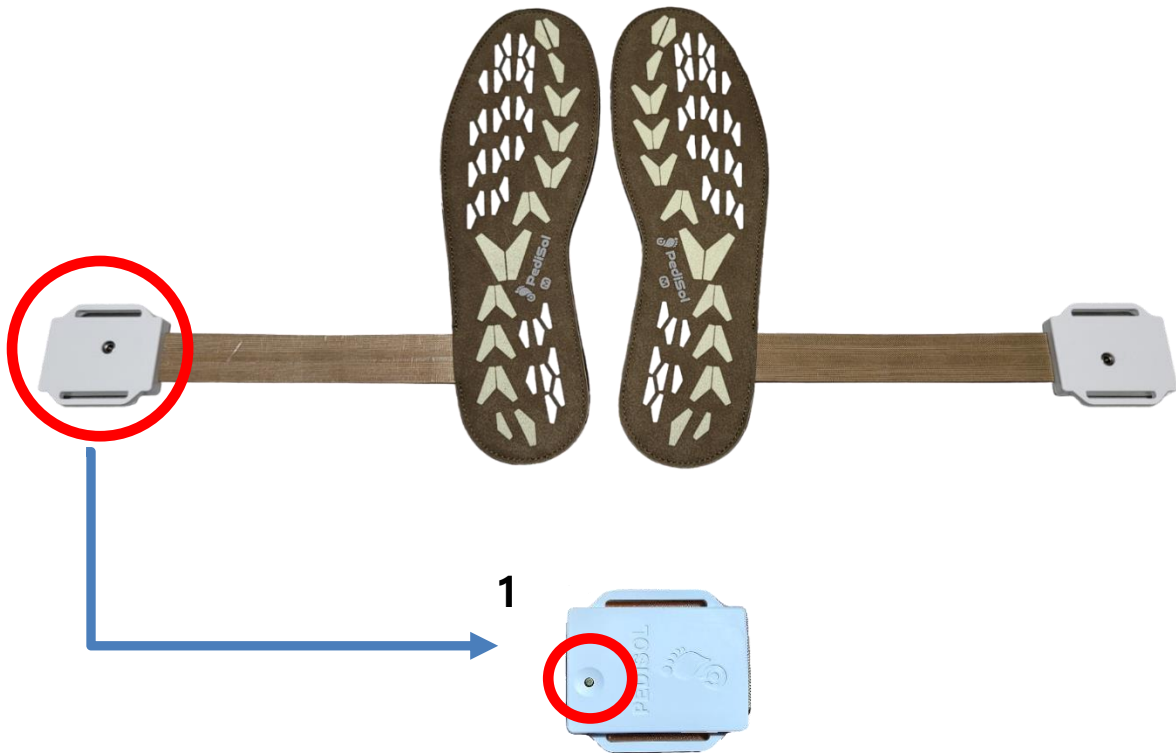
# Pedisol Manual

## System configuration



After the user wears the smart insole , the smart insole and smart devices (smartphone, tablet, etc.) are connected via Bluetooth to measure and analyze the user's walking data.

## Smart Insole



1. Power Switch : A switch that turns on and off the power of the Smart Insole. The power switch is turned on when the switch is pressed. When the power is turned on, the LED will flash blue and will be in a connection standby state.

# How to use Smart Insole App by menu

## HOME menu

SPINA SYSTEMS

Home Device Examination Balance Result Gait Analysis

Examination Information

Name:

Date of Birth:

Sex: ☒ Male ☐ Female

Next

Date ▼

- / 880705
- 김재익 / 50
- 신동엽 / 58
- 윤봉섭 / 43
- 이민수 / 23
- 이영미 / 660410
- 지현 / 860704

The name, date of birth, and gender of the examinee will be entered for the first time. After entering the examinee information, press ' **Next** ' to go to the ' **Device** ' menu.

SPINA SYSTEMS

Home Device Examination Balance Result Gait Analysis

Examination Information

Name: 지현

Date of Birth: 860704

Examination Balance Result Gait Analysis

Date ▼

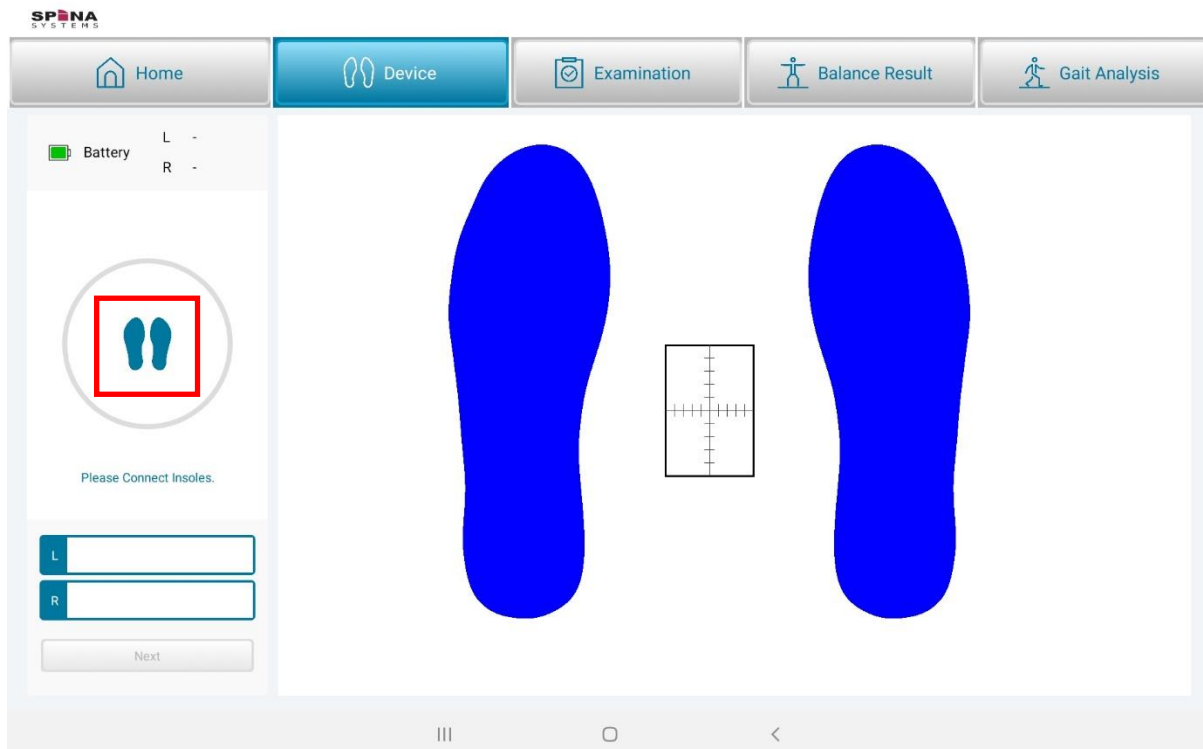
- / 880705
- 지현 / 860704

On the right side of the Home menu the list of registered examinee appears, and can be sorted by

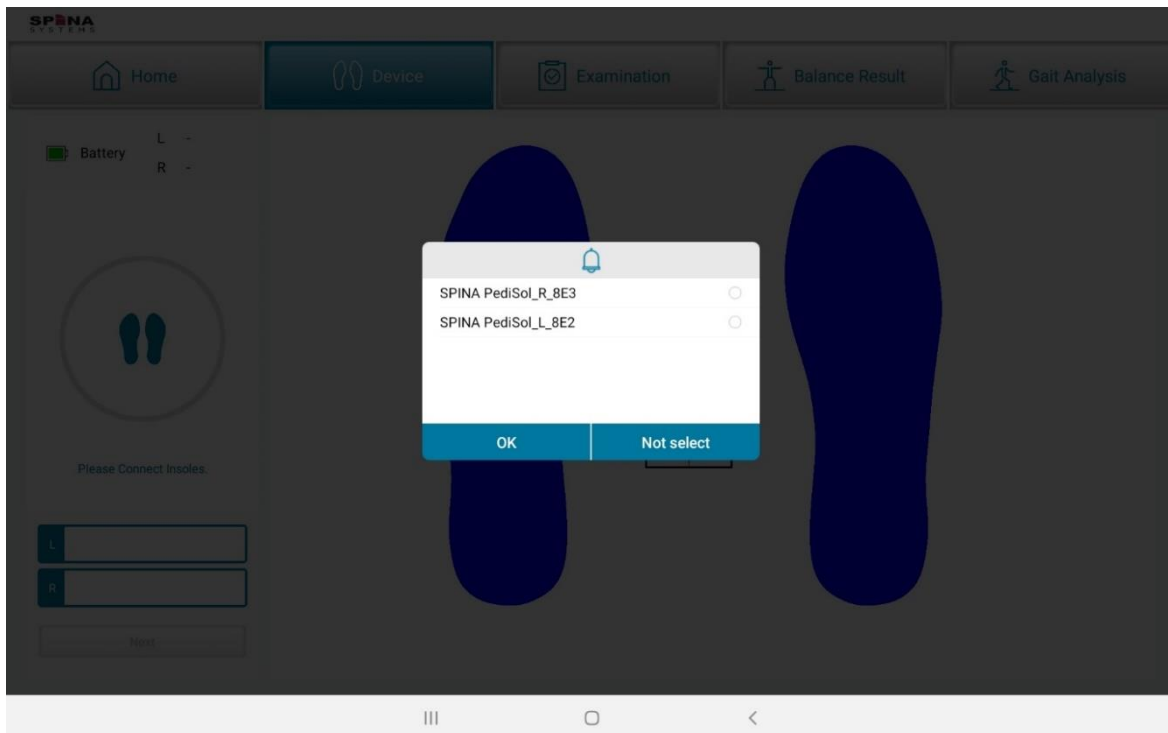
date or name. If you select the registered name, Examination, Balance Result, Gait Analysis window will appear in which you can navigate the menu.

## Device menu

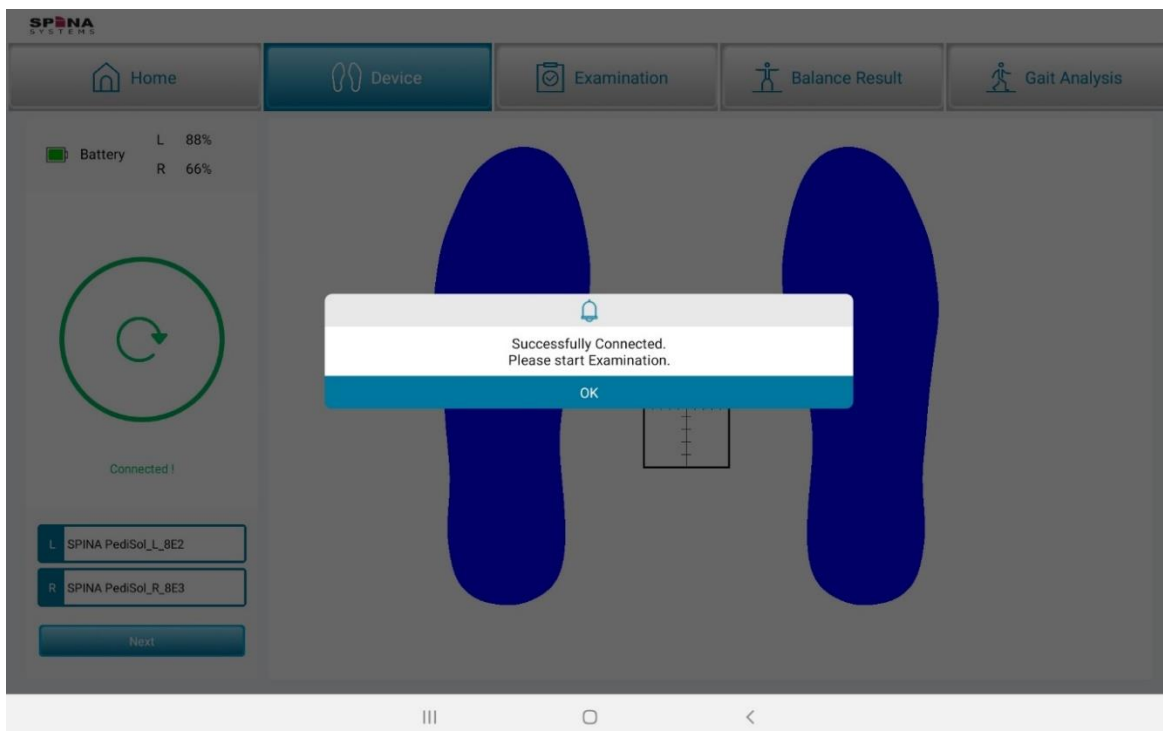
This menu is for searching and connecting the Smart Insole with the smart device..



When the smart insole is in the stand-by mode, pressing the insole **icon** button brings up the insole selection window.



After selecting the insoles to connect with, press OK to proceed.



When the device connection is completed, a message window is displayed as shown above. Click ' **Next** ' to go to the Examination menu.

※ If one of the insoles does not work properly after connection, close the Smart Insole app and reset the Smart Insole by pressing the button <R>, and then retry the app.

## Examination menu

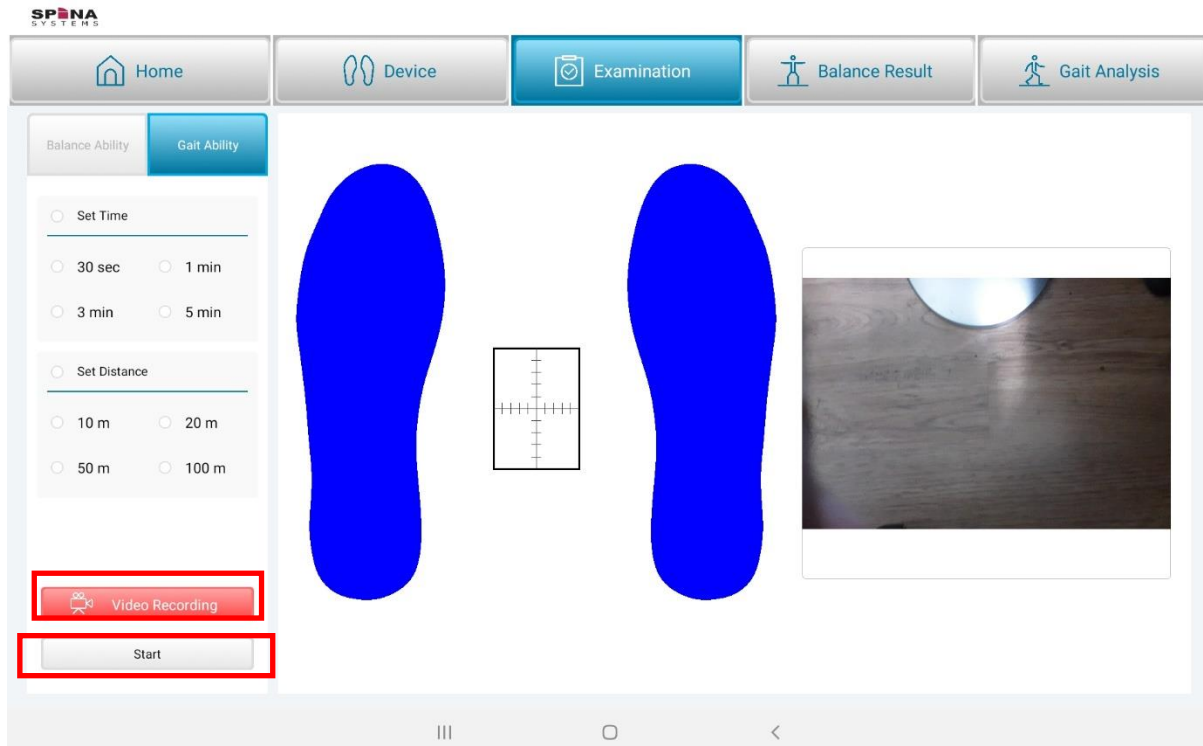
In the Examination menu, select either ' Balance Ability ' or ' Gait Ability ' .

The screenshot shows the SPINA SYSTEMS Examination menu. The 'Balance Ability' button is highlighted with a red box. The interface includes a top navigation bar with 'Home', 'Device', 'Examination', 'Balance Result', and 'Gait Analysis'. Below the navigation bar, the 'Balance Ability' section is active, showing a 'Set Time' section with radio buttons for 10 sec, 20 sec, 30 sec, and 60 sec. A 'Start' button is at the bottom. The central area displays two blue footprints and a crosshair. On the right, there are two empty line graphs labeled 'L Pressure Data' and 'R Pressure Data'.

To examine Balance Ability, set the time to examine.

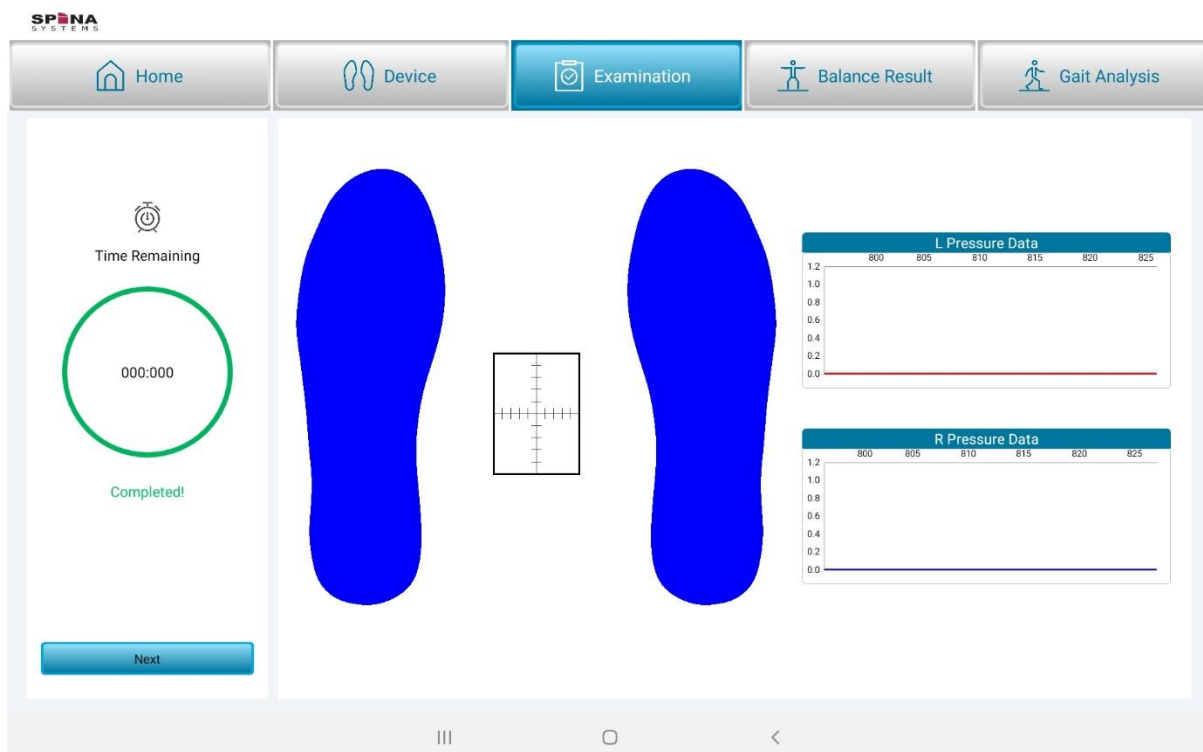
The screenshot shows the SPINA SYSTEMS Examination menu with the 'Gait Ability' button highlighted by a red box. The 'Gait Ability' section is active, showing two sub-sections: 'Set Time' with radio buttons for 30 sec, 1 min, 3 min, and 5 min; and 'Set Distance' with radio buttons for 10 m, 20 m, 50 m, and 100 m. A 'Video Recording' button and a 'Start' button are at the bottom. The central area displays two blue footprints and a crosshair. On the right, there are two empty line graphs labeled 'L Pressure Data' and 'R Pressure Data'.

Gait Ability can be examined by either measuring time or measuring distance



In addition, video recording is possible with Gait Examination by using the mobile device camera. Press the '**Video Recording**' button to activate the camera.

After selecting the ability to measure, press the '**Start**' button to start examination.

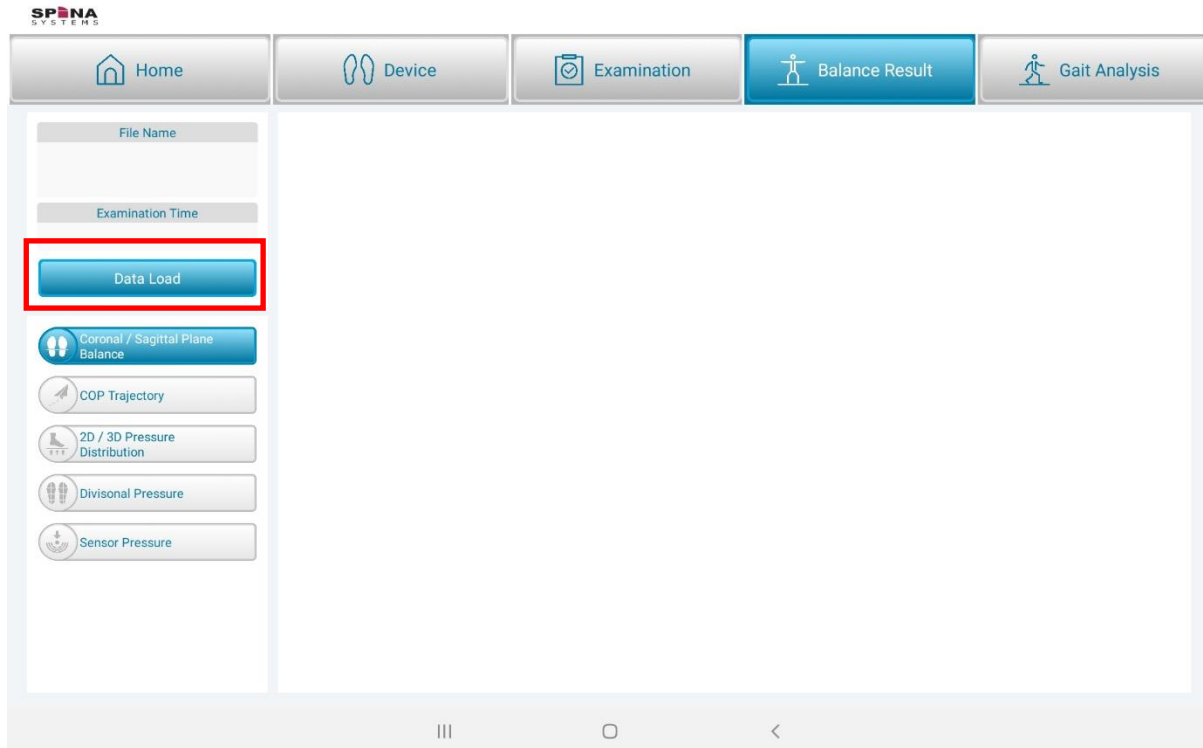


When the examination is completed, the measured data is saved automatically.

Press the button '**Next**' to go to the analysis menu screen.

## Balance Result menu

This menu is to analyze and show the measured information of ' Balance Ability ' .

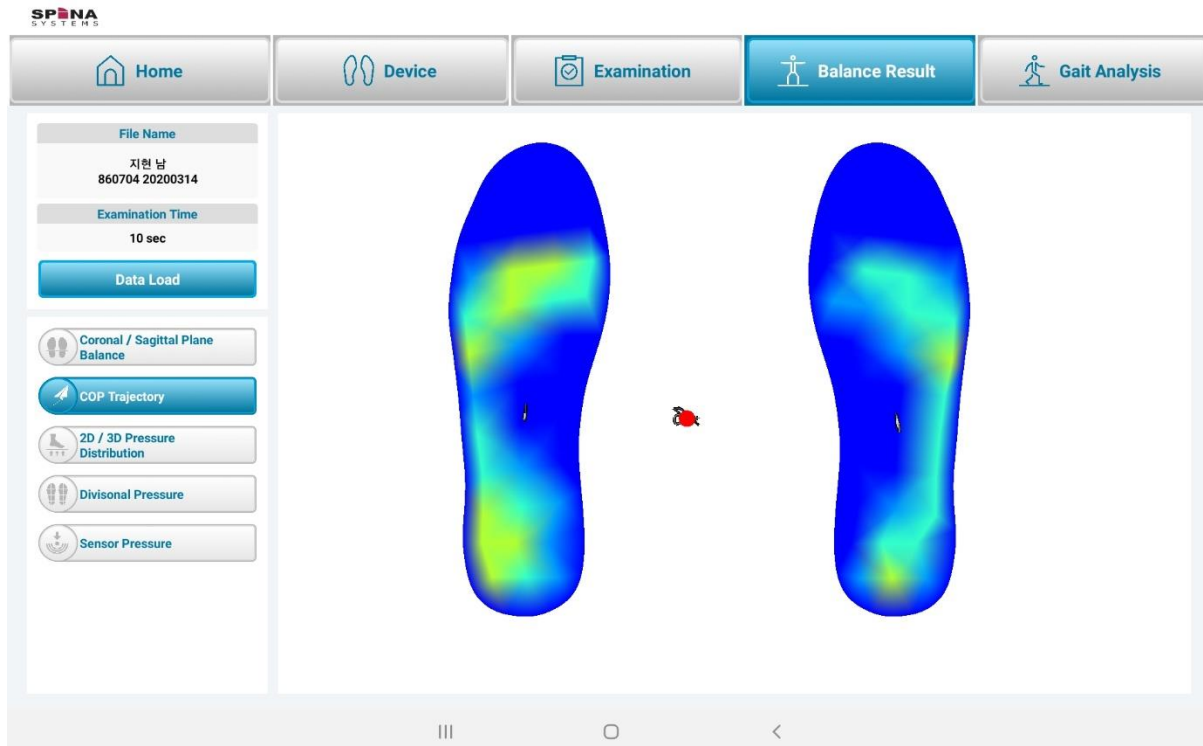


In the ' Data Load ' menu, you can upload the saved ' Balance Ability ' data.



The 'Coronal / Sagittal Plane Balance' menu is an analysis of the static balance.





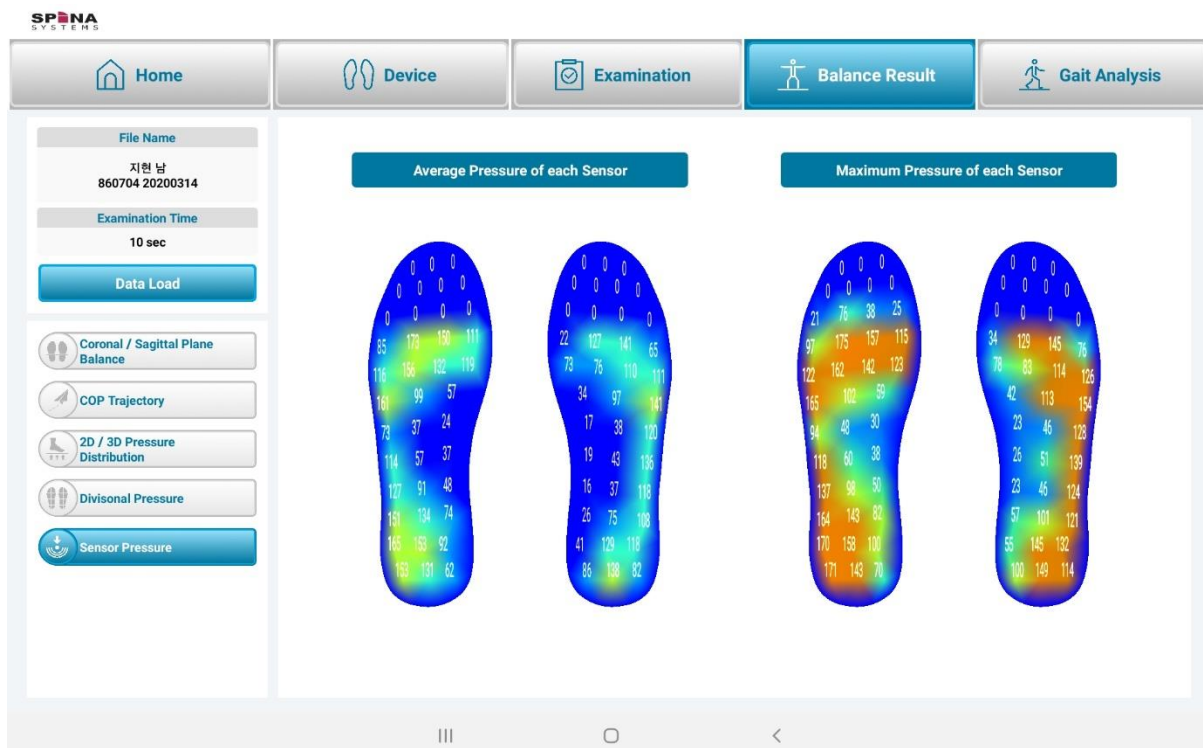
In the ' COP Trajectory ' menu, you can check the changes of the COP(Center of Pressure) of each of the left and right foot, and also the COP of both feet during measurement.



In the ' 2D/3D Pressure Distribution ' menu, you can check the pressure distribution of the foot in 2D and 3D shapes. Press the play button to play and show the pressure data.



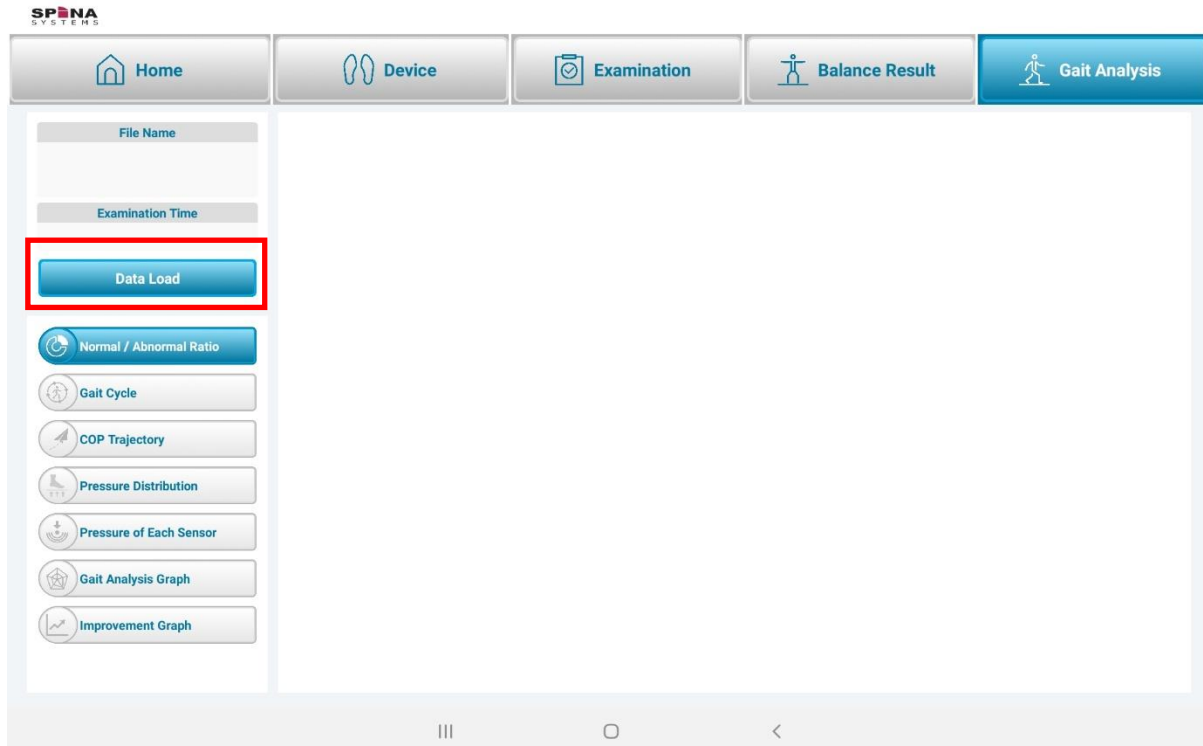
In the ' Divisional Pressure ' menu, the foot is divided into 9 areas to show the average pressure and the maximum pressure values for each area.



In the ' Sensor Pressure ' menu, you can see the average pressure and the maximum pressure value of each sensor.

## Gait Analysis menu

This menu analyzes and shows the measured information of ' Gait Ability ' .

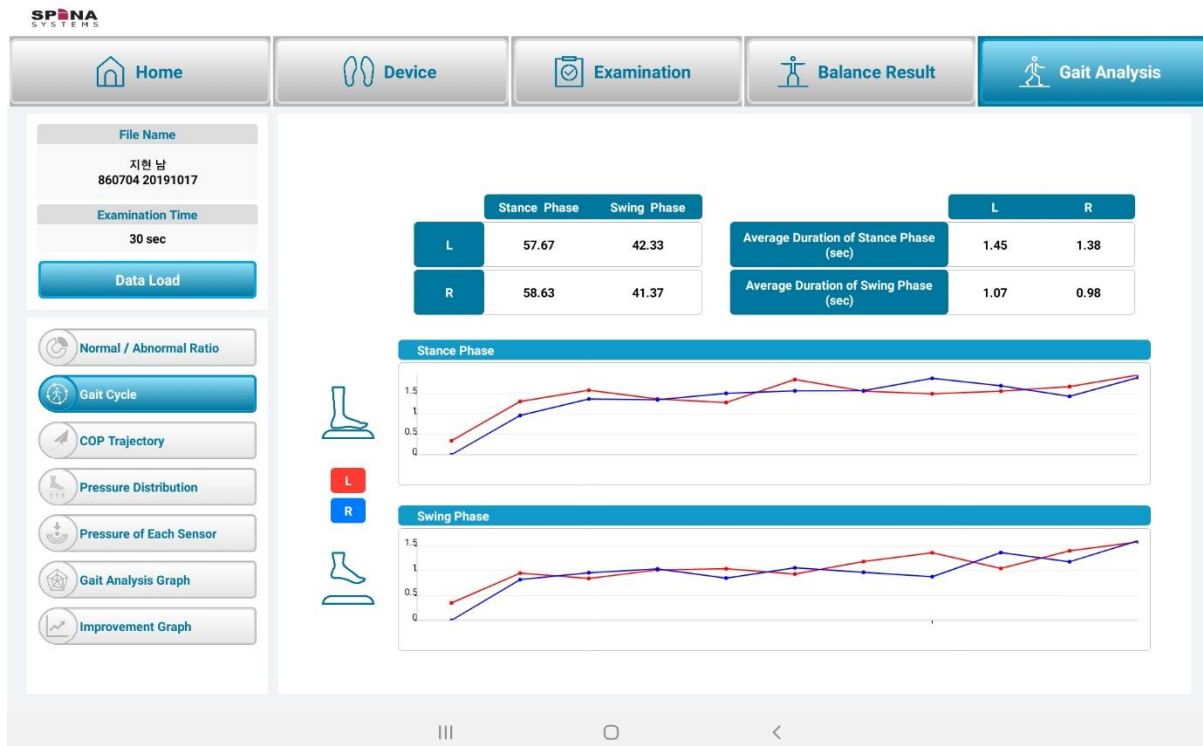


In the ' Data Load ' menu, you can upload the saved ' Gait Ability ' data.

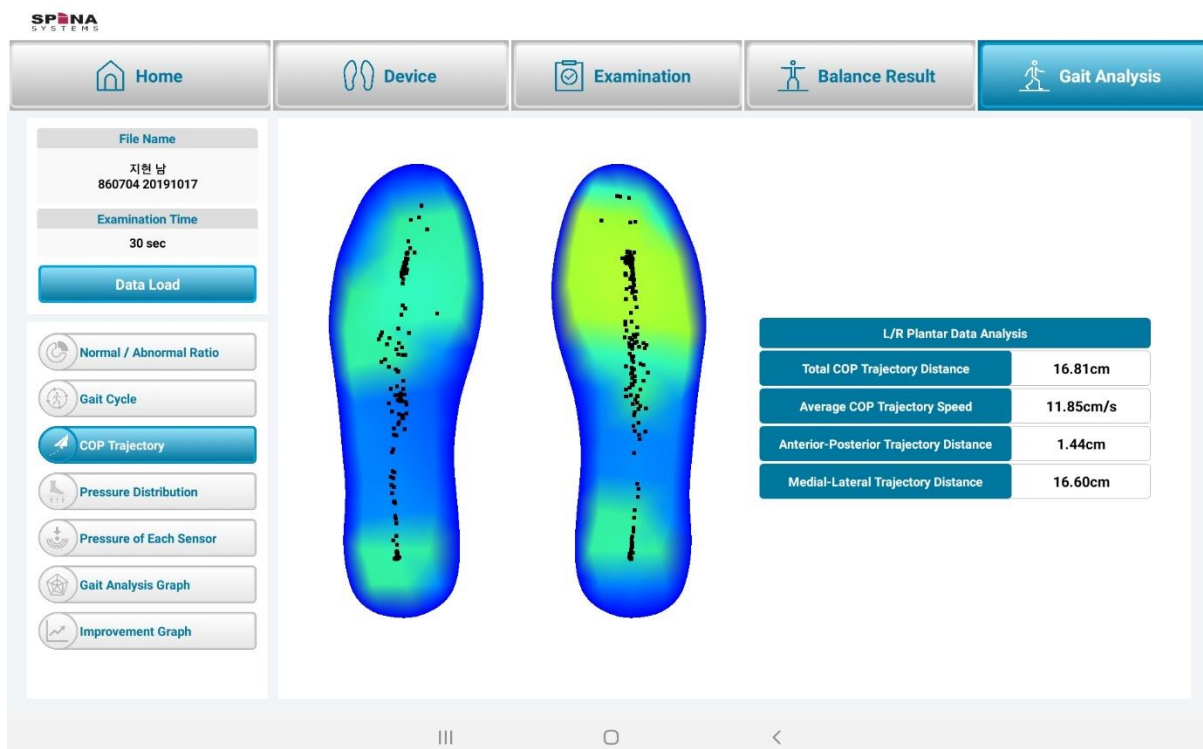


In the ' Normal/Abnormal Ratio ' menu, you can check the normal and abnormal step ratios of

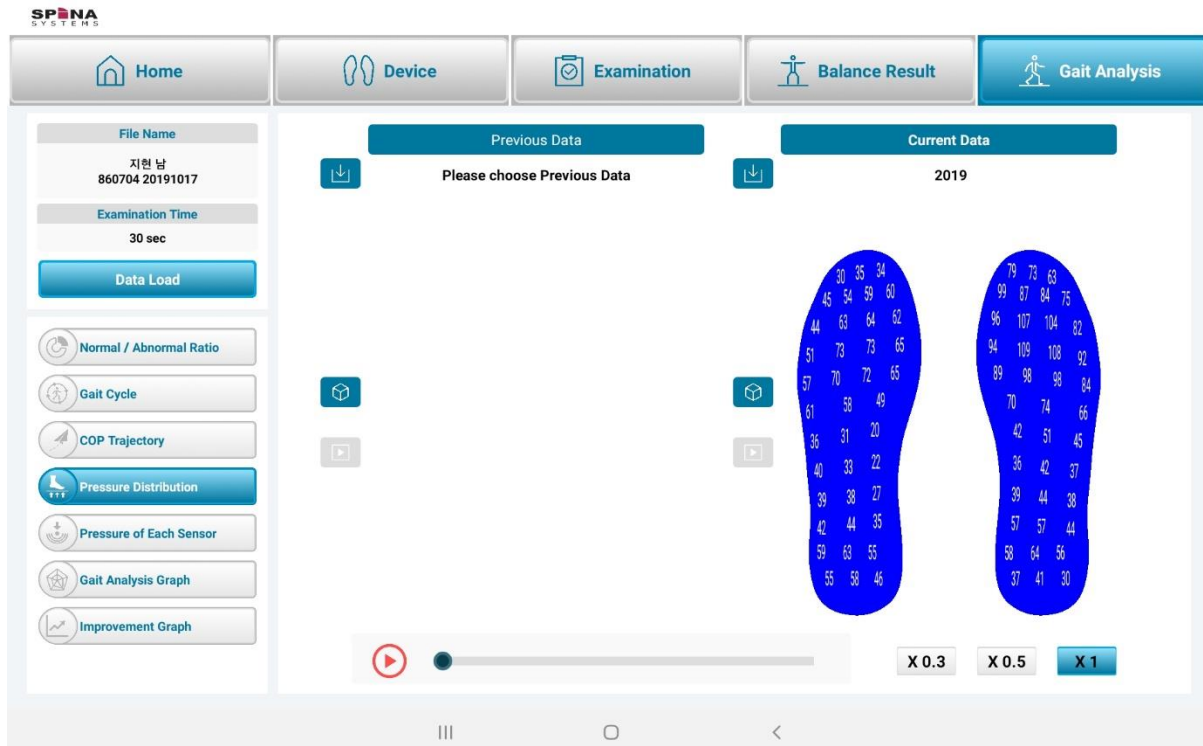
the left and right foot, the number of steps, and the average walking time.



In the ' Gait Cycle' menu, you can check the ratio and time of the average stance and swing phase.



In the ' COP Trajectory ' menu, you can check the COP distribution of the left and right foot during examination.

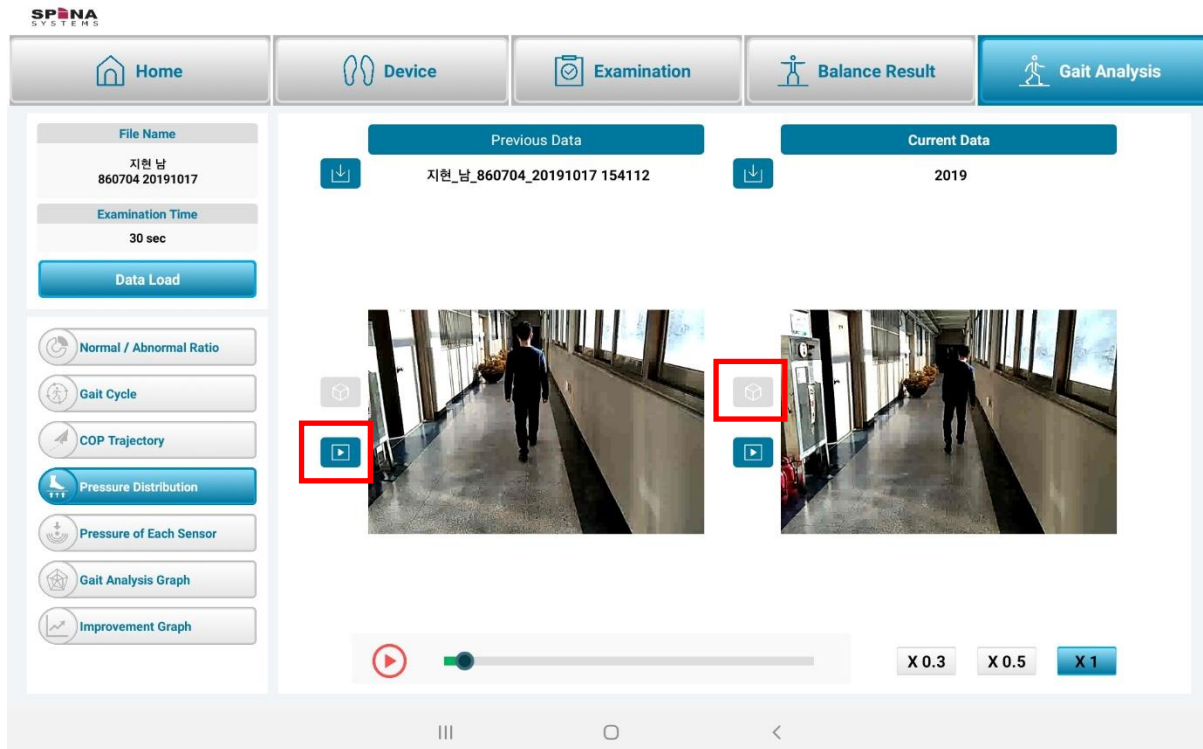




In the ' Pressure Distribution ' menu, you can check the pressure distribution of each foot. Press the play button to play and show the pressure data movement while walking.

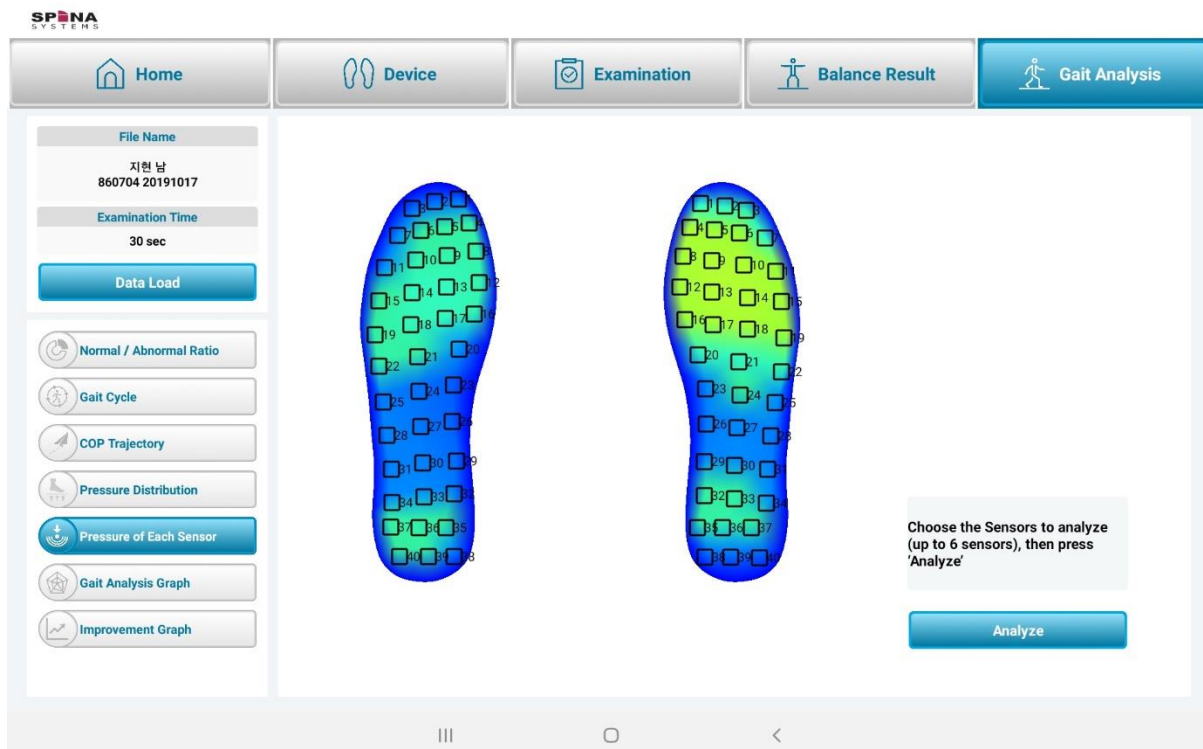


Press the data import button of ' Previous Data ' to upload the previous data and compare it with the current data.



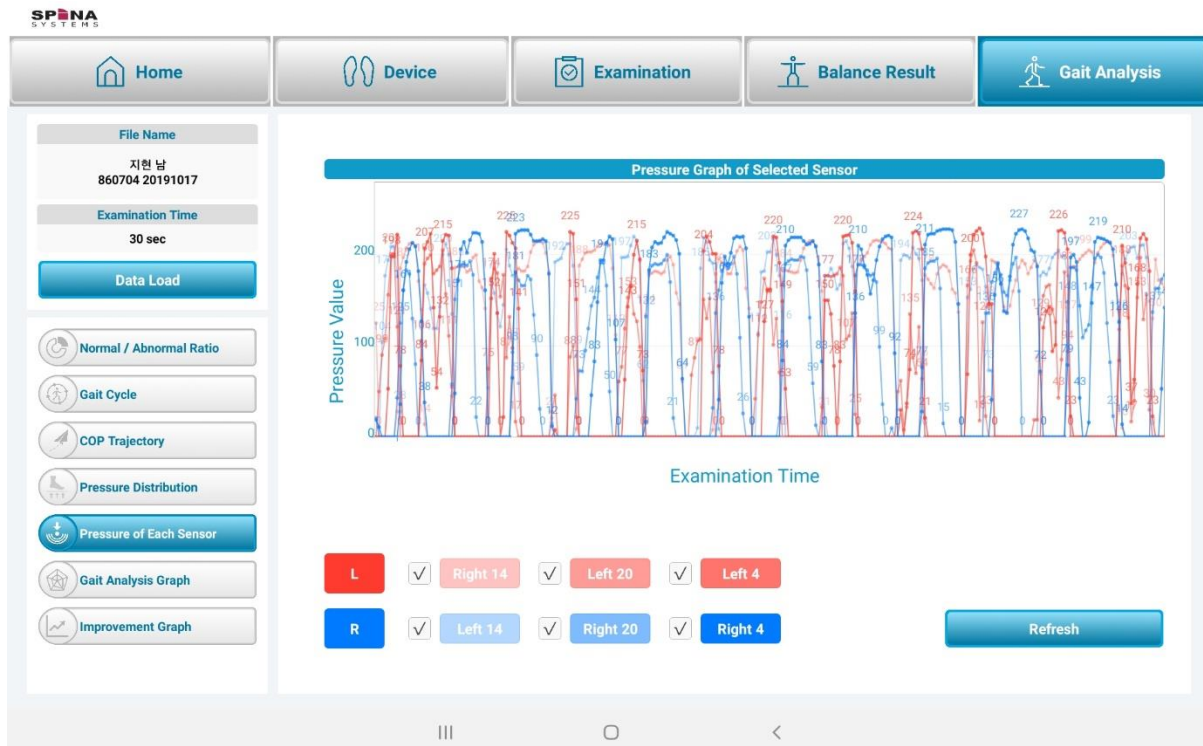


If you have recorded video, press the video button  to see the video. Press the pressure distribution button  to return to the pressure distribution screen.

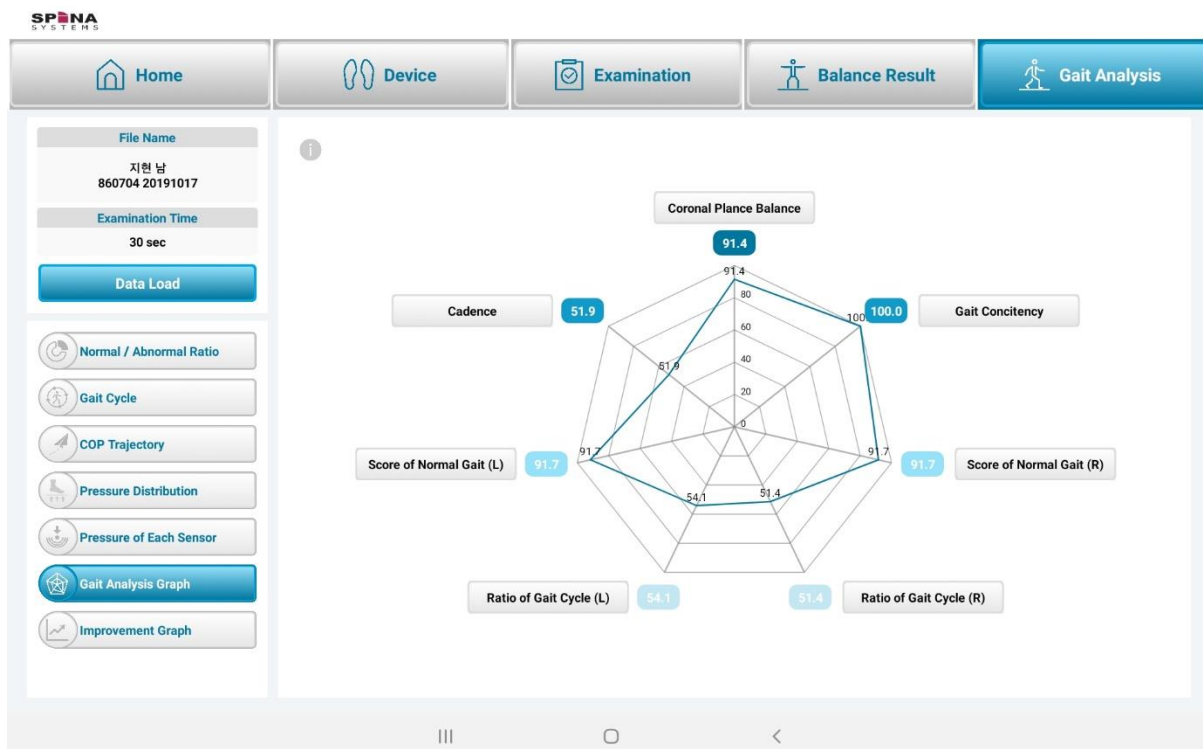


In the ' Pressure of Each Sensor ' menu, you can select up to six sensors from the left and right feet to analyze the details of selected sensor data.

After selecting the sensors to check, press the button ' **Analyze** '. The pressure change of the selected sensors is displayed.



The pressure change graph can be enlarged/reduced. If any of the selected sensors is to be removed from the graph, uncheck the applicable sensor and press the button 'Refresh'.



'Gait Analysis Graph' menu shows the scores for each measurement.



'Improvement Graph ' displays the change of accumulated measurement data to show the progress.

#### FCC Compliance Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

#### FCC Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### FCC Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.