heartfish

User manual for the heartfish app

Version: 1.3.0 - 2023-09-19

1 Fields of application

1.1 Intended application

The medical benefit of the heartfish app lies in the increase in physical performance, which is a robust measure of physical activity and a strong predictor of all-cause and cardiovascular mortality. The heartfish app supports patients with chronic diseases such as diabetes, hypertension, cancer and multiple sclerosis in implementing their individual multimodal therapy recommendations and integrating them into their daily lives in the best possible way. The heartfish app enables patients to document training sessions and vital data and to display their training progress clearly and comprehensibly. In addition, wearables and health devices such as heart rate monitors or blood pressure monitors can be synchronised with the app to avoid manual input errors and to effortlessly document training progress.

1.2 Who is the heartfish app suitable for?

The heartfish app was developed for patients diagnosed with the following diseases

- E11 - Diabetes mellitus type 2
- I10 - Essential (primary) hypertension
- I25 - Chronic ischaemic heart disease
- C00-C97 Malignant neoplasms
- G35.- Multiple sclerosis

and the

- Are 18 years or older
- be under the regular supervision of a doctor or health professional
- are physically and mentally able to carry out their training therapy independently

- are able to operate a smartphone

1.3 On which devices does the heartfish app work?

The heartfish app can be used on iOS devices with iOS 12.1 or higher. It can also be used on most Android smartphones with Android 6.0 or higher. The heartfish app should not be used on rooted devices or devices with a jailbreak installed.

1.4 Usage environment

The heartfish app can be used as a mobile application in any environment where smartphones are usually used. The app is therefore not bound to indoor use.

2 Contraindications

2.1 When not to train with the heartfish app

- Nausea, dizziness or vomiting
- Acute or severe infection
- Increased body temperature/fever (over 38 degrees Celsius)
- Thrombocytopenia (platelets below 10,000 per microlitre of blood), acute bleeding or bleeding tendency.
- Anaemia (haemoglobin below 8 g/dl)
- Coronary heart disease with unstable angina pectoris
- Inadequately controlled diabetes mellitus
- Inadequately controlled high blood pressure or hypotension

3 Warning

3.1 Medical recommendation

The heartfish app is designed to support medical training therapy. It cannot replace a visit to the doctor. In particular, we recommend a stress ergometry to determine the individual training heart rate before starting training.

For the control and dosage of endurance training, it is pointed out that not only the heart rate indicated by technical devices, but also the breathing rate and the subjectively perceived load intensity (BORG scale 5-6 or 10-12) should always be taken into account in order to avoid a possible overload.

3.2 Recommended updates

To ensure safe and optimal use of the heartfish app, it is recommended to install software updates as soon as they are available.

3.3 heartfish App Main Functions

- Daily updated training recommendation
- Individual training goals
- Recording of the training units (steps, endurance, strength and mobility)
- Display of the weekly trend
- Recording of health data
- History display for training and vital values
- Bluetooth heart rate monitor synchronisation
- Synchronisation of Bluetooth blood pressure monitors
- Synchronisation of many popular fitness watches (Polar, Fitbit, Garmin, Suunto, Withings, Apple Watch)
- Playing course videos
- Customisable training reminders
- PDF reports

4 First steps

4.1 Installation

iOS: After you have found the heartfish app in the Apple App Store, click on it to open the details. Then click on the "LOAD" button and then on "Install". After authentication in the App Store, the loading process begins and the app is installed on the iPhone.

Android: After you have found the heartfish app in the Google Play Store, click on it to open the details. Then press the "Install" button. Afterwards, you must accept the installation conditions in order to download the app. The loading process begins and the app is installed on the Android phone.

4.2 Register

To use the heartfish app, you must first register. To do this, follow the instructions on the screen.

5 Training

There are three different ways to record a training session in the heartfish app.

5.1 Manual entry

Tap on the plus symbol (+), select a training type, enter the duration in minutes and confirm with the tick in the upper right corner. Note: If you want, you can adjust the date and time of the training.
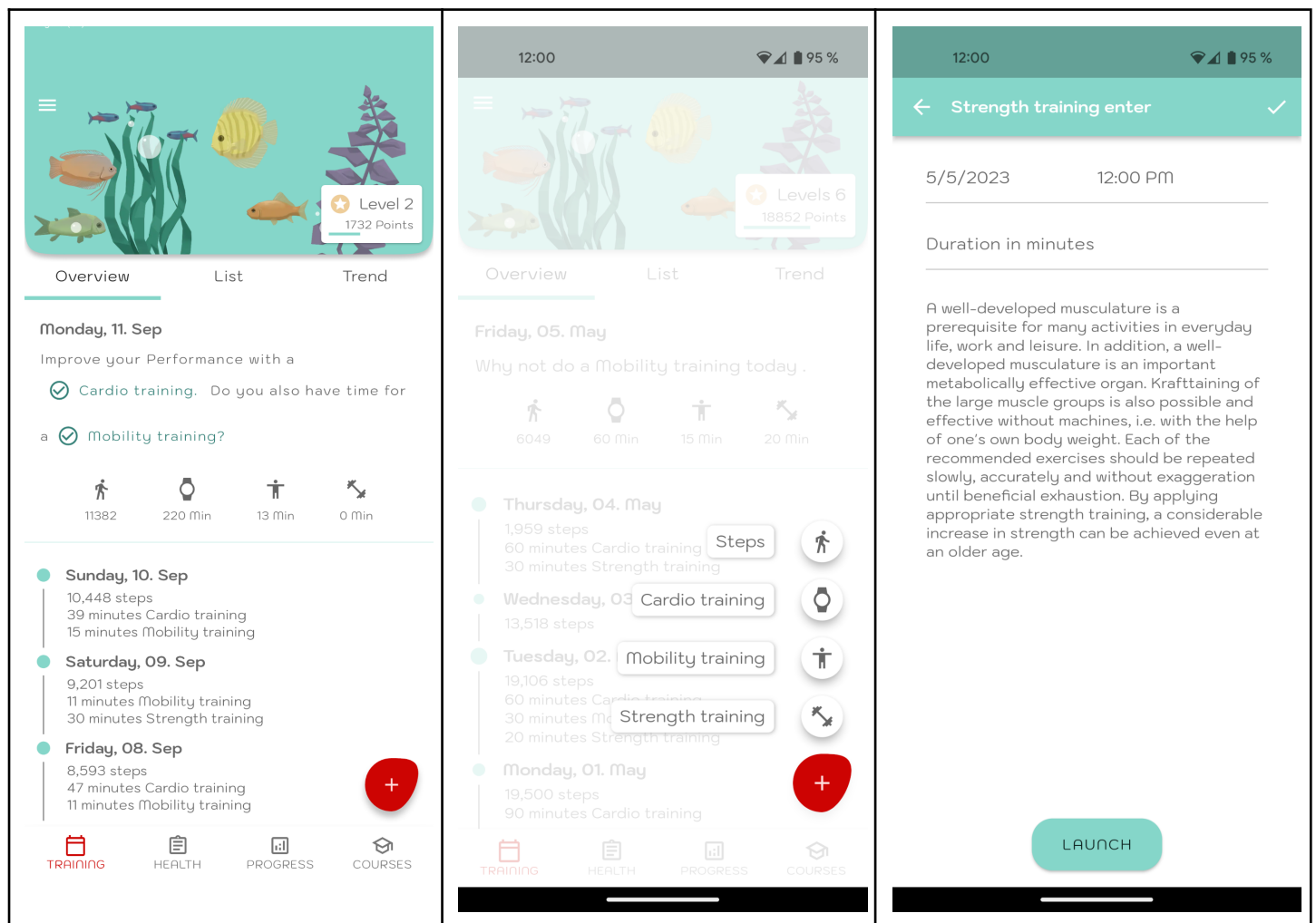
5.2 Recording in the app

Tap the plus symbol (+), select a training type and click "Start". When you are done with the training, select "Finish". On the next screen, do not forget to confirm the recording with the tick in the upper right corner.
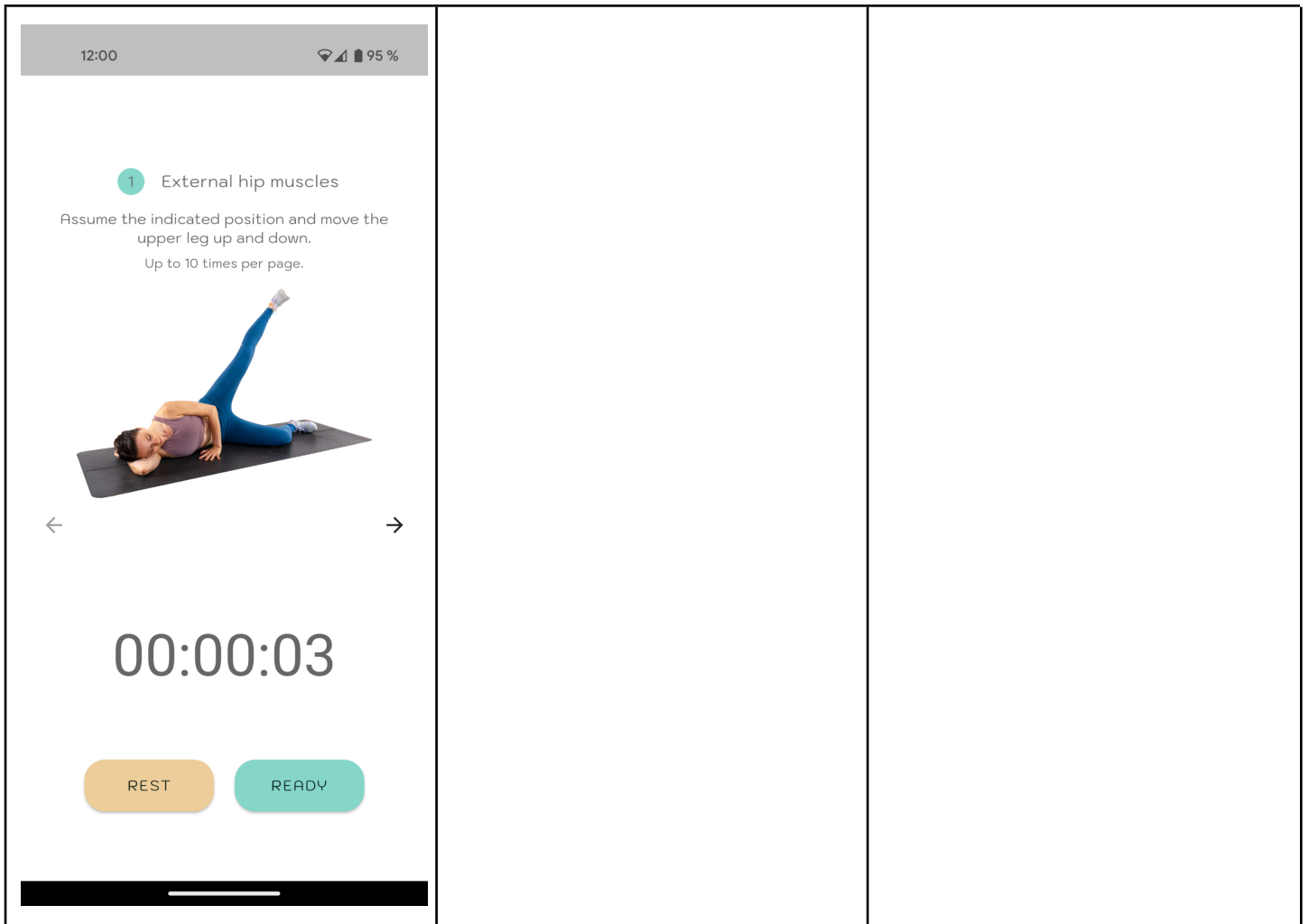
5.3 Special case of cardio training

Tap on the plus symbol (+), select cardio training and tap on "Start". In the next screen you have the option to connect a heart rate belt for training control. To do this, follow the instructions on the screen. During the cardio training with the heart rate belt connected, a traffic light shows you at any time whether you are below, in or above your personal target heart rate range.

At the beginning of the training, the timer for the total time starts. As soon as you have reached your target heart rate, the timer for the time in the target zone also starts running.

When you are done with the training, select "Done". Do not forget to confirm the recording with the tick in the upper right corner in the next screen.

Note: To better track your training progress, we recommend that you enter your wattage at the end of the workout before confirming the workout with the tick in the top right corner.
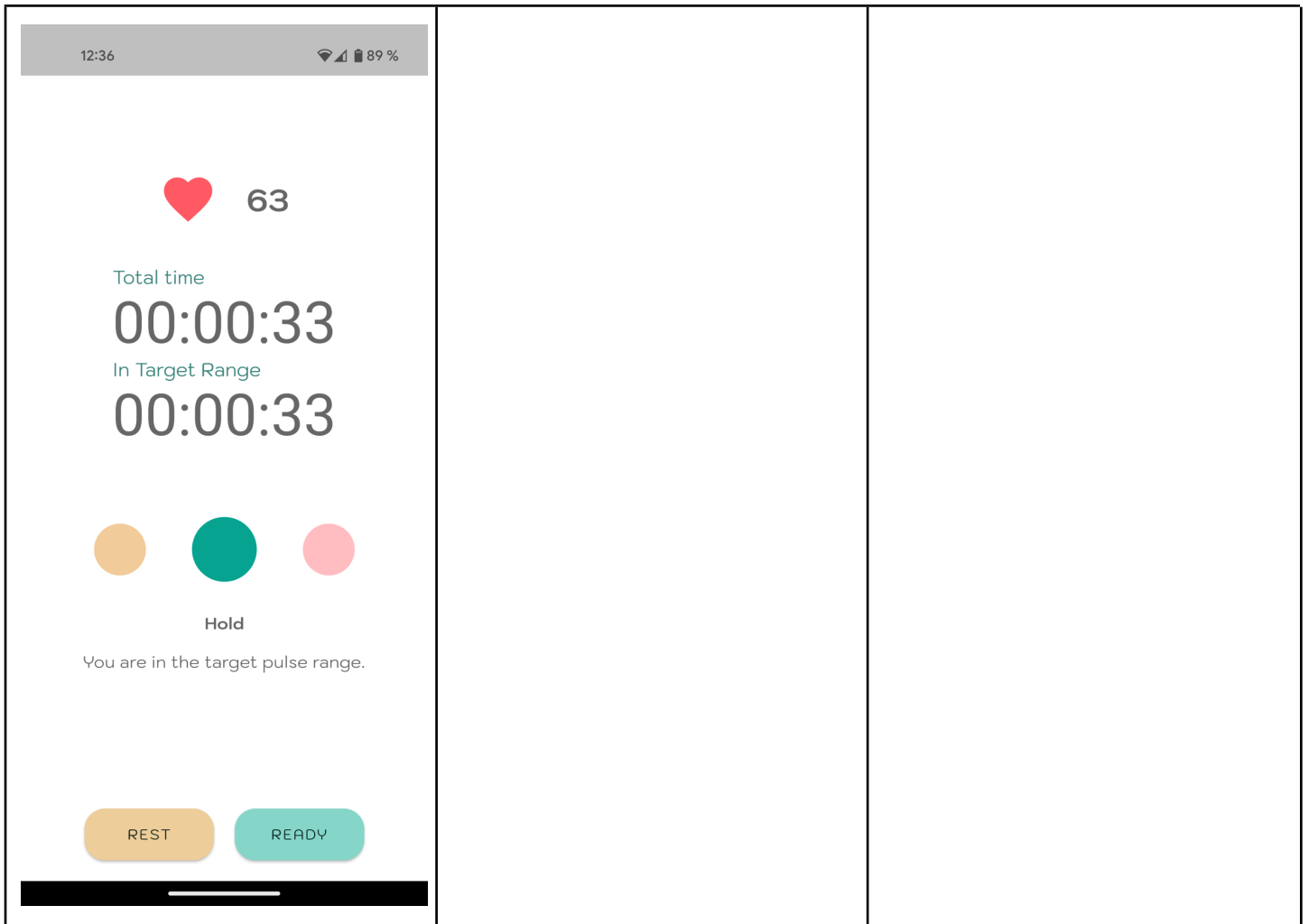
## 5.4 Synchronisation from a connected device (heartfish Pro)

If you have taken out a heartfish Pro subscription, you have the option of synchronising data directly from the account of a connected device. To do this, select your manufacturer in the device overview and click on Connect. Follow the on-screen instructions to link your account. When you record future workouts on your device, they will appear directly in your workout list (see point 5.5).
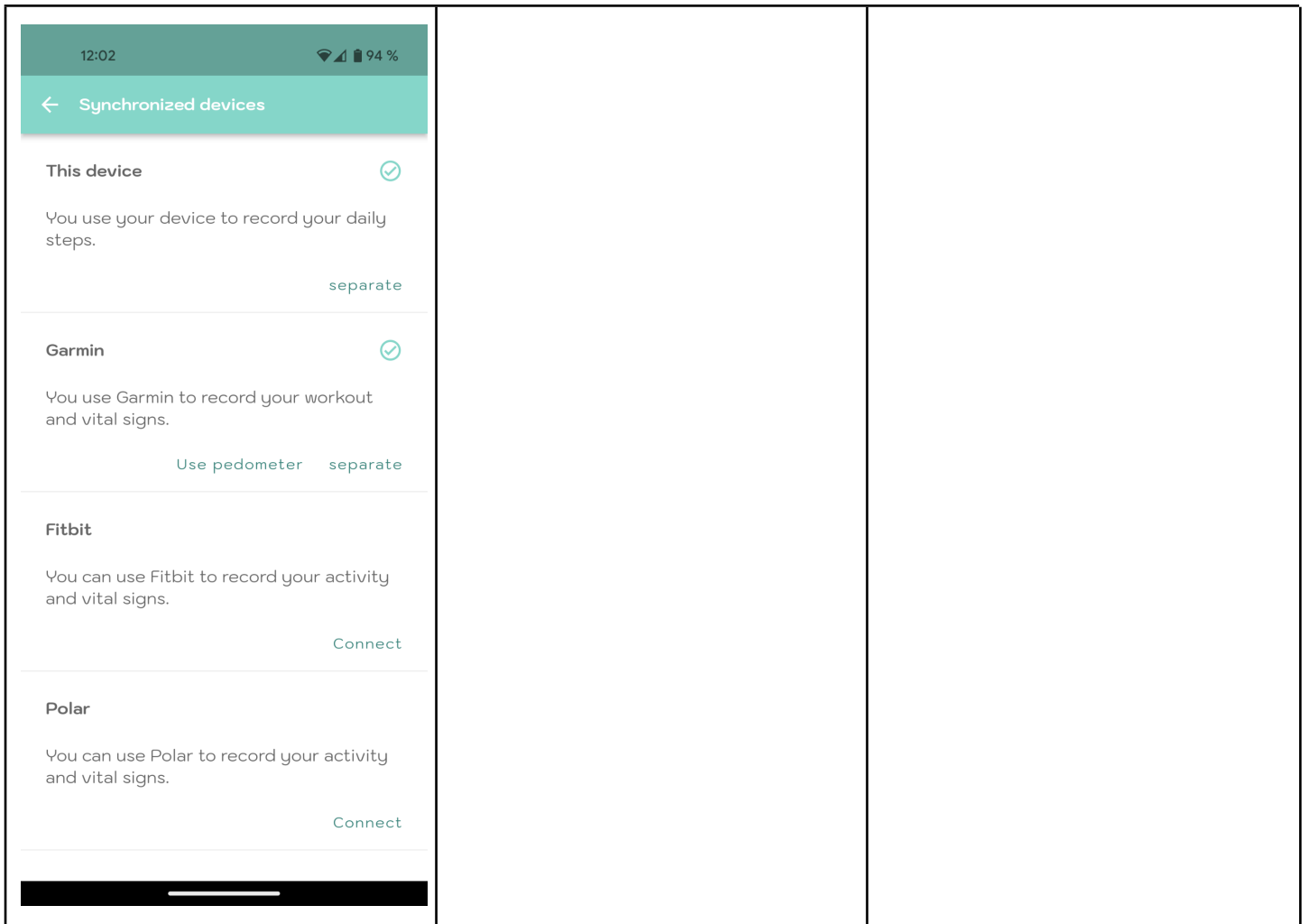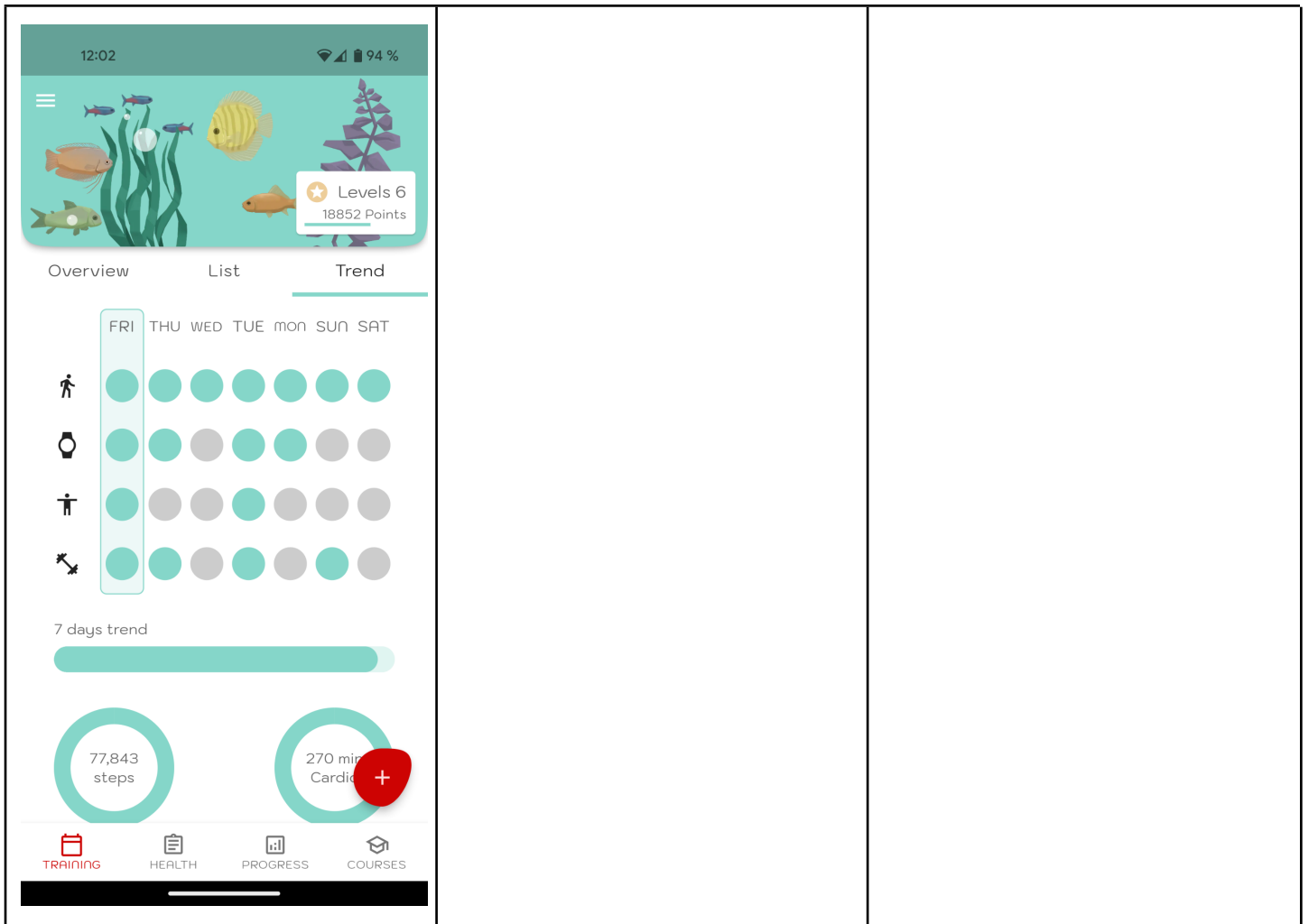
5.5 List

In the list view, you can see all saved activities in chronological order. In heartfish Pro you can also filter one or more activity types.
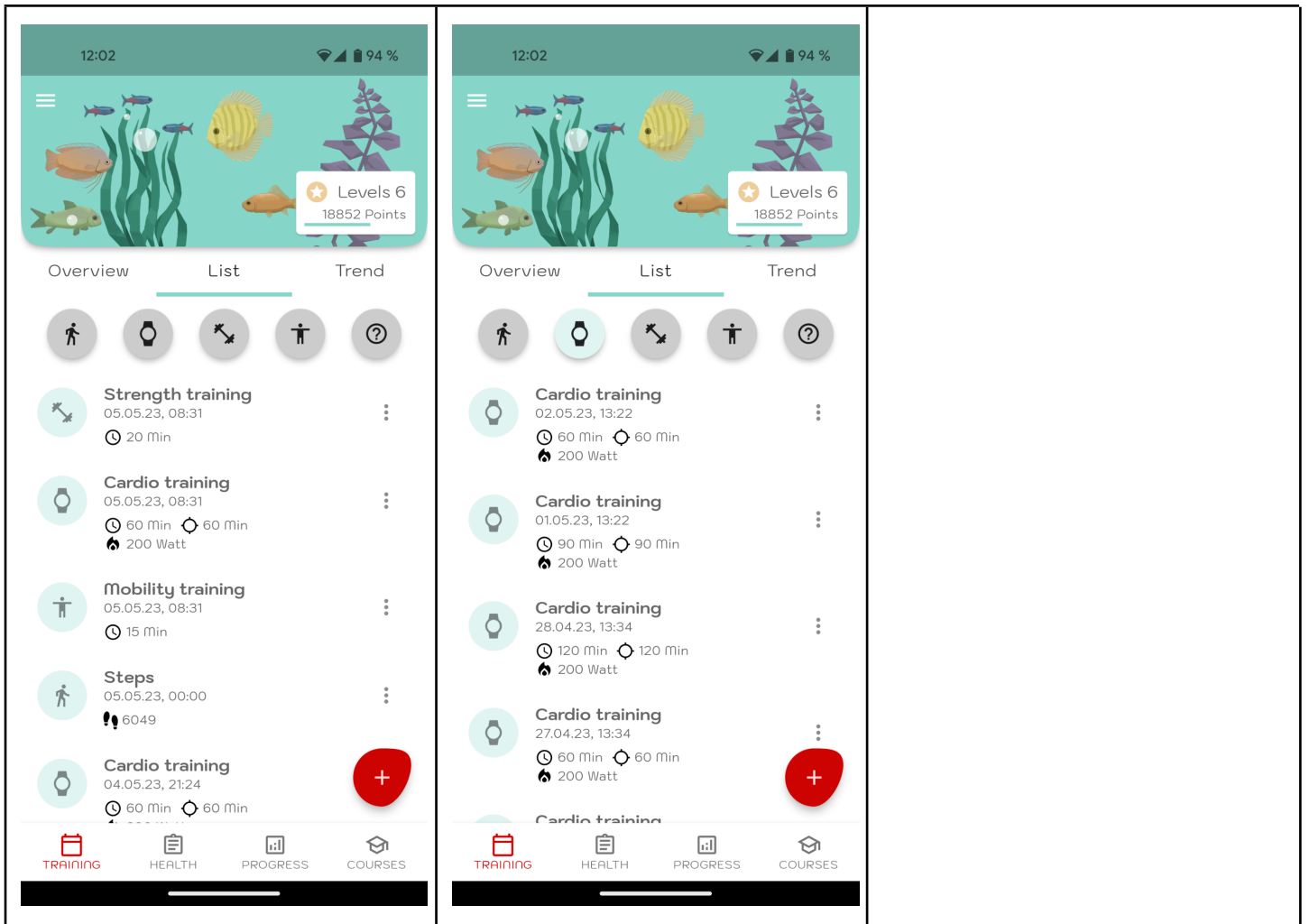
5.6 Trend

In the trend view, you can see your activities and progress over the last seven days at a glance. You can also see immediately which weekly goals you have already achieved and where there is still something to do.

6 Health data

The entry of health data works in the same way as the manual entry of training units. A distinction is made between the two categories vital data such as weight and blood pressure and well-being such as stress and sleep quality. There is a separate tab for each category. A special case in the vital data tab is the synchronisation of blood pressure values from a connected Bluetooth-enabled blood pressure monitor.

6.1 Vital data and well-being

You can switch between "Vital data" and "Well-being" in the menu bar at the top. The entry of the respective values works analogously in both areas and is described in the next section. Under the menu item "List" you will find the values of both categories in an overview.
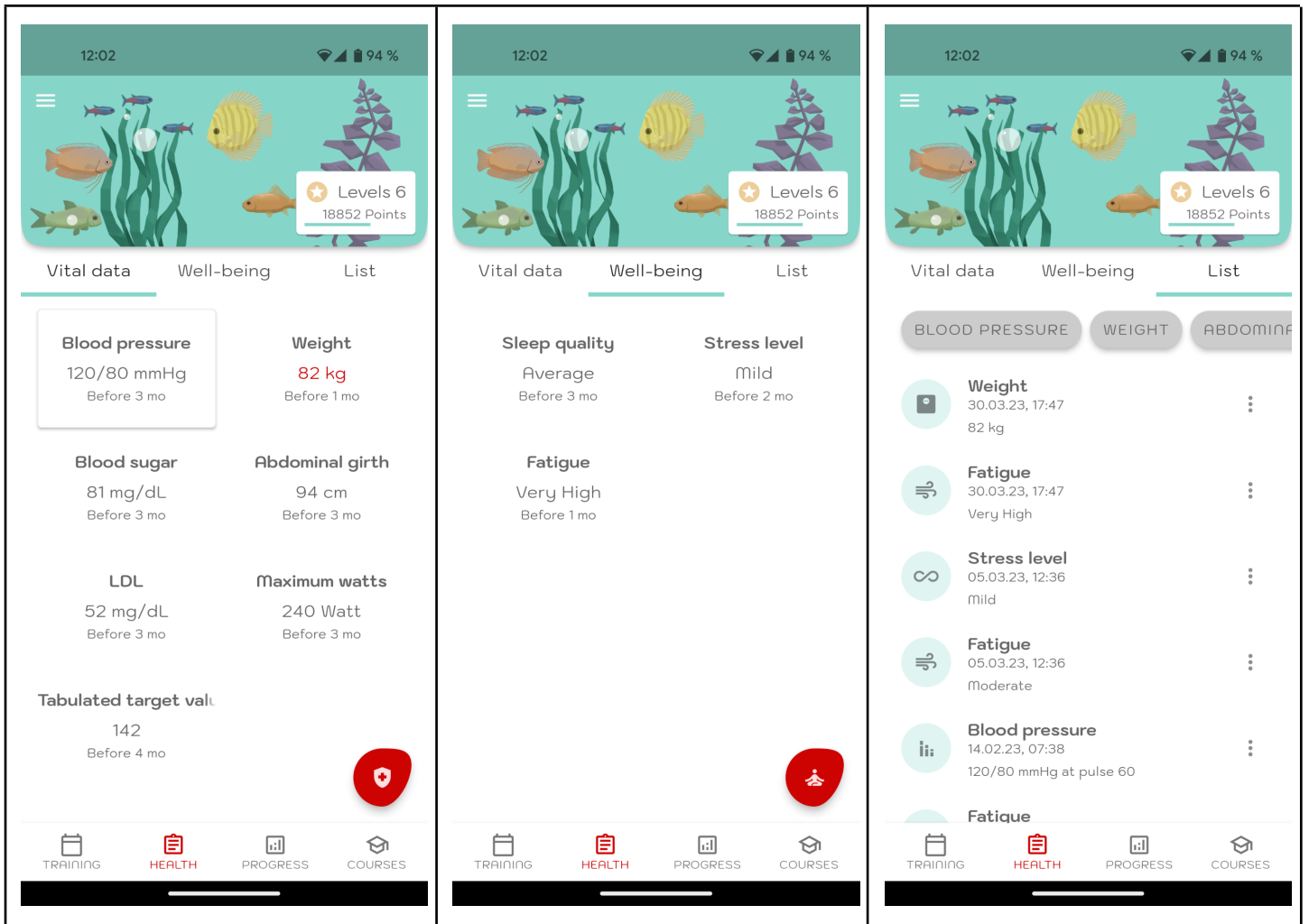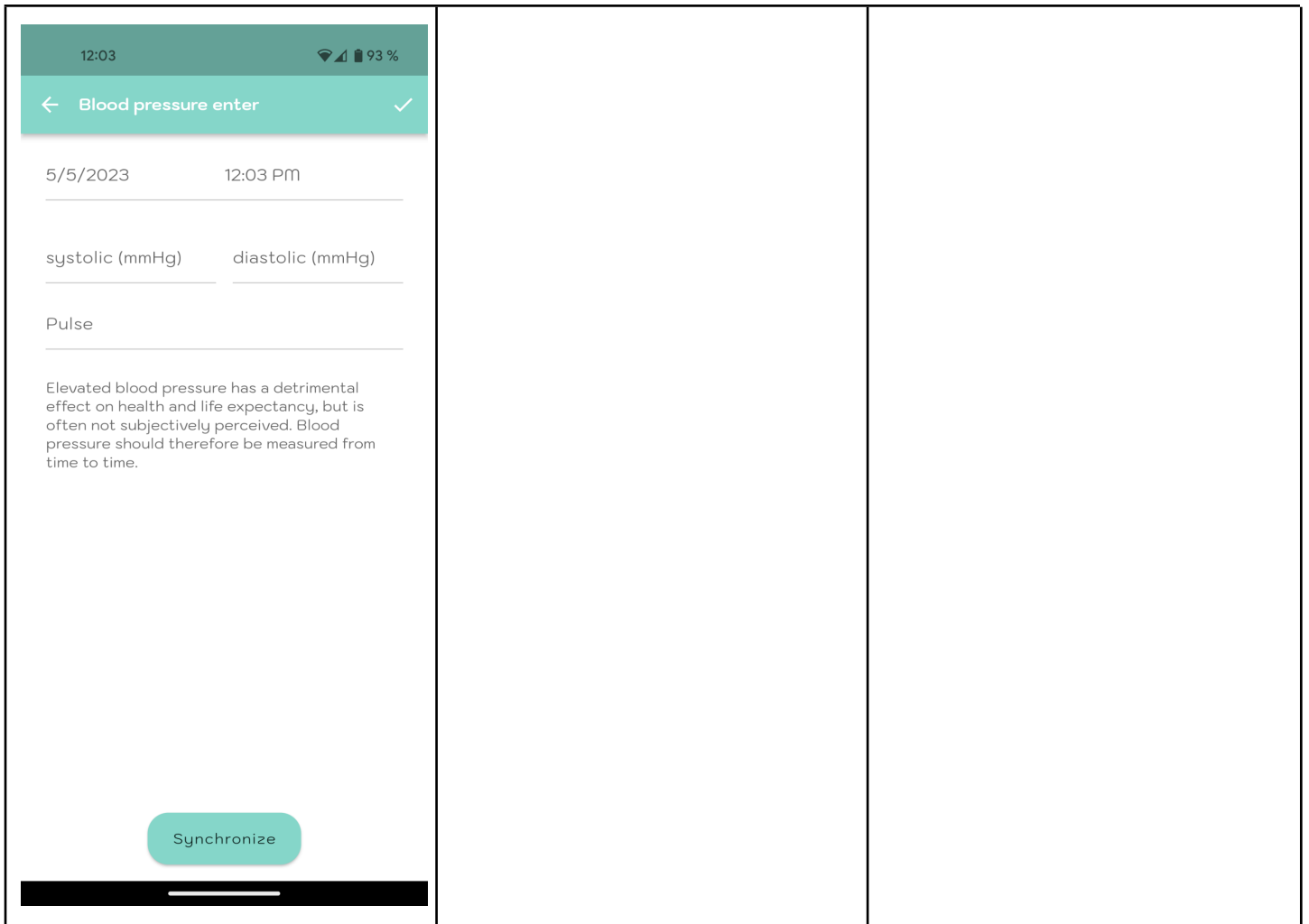
6.2 Manual entry

Tap on the plus symbol (+), select a value, enter the values and confirm with the tick in the upper right corner.

Note: If you want, you can change the date and time of the entry.
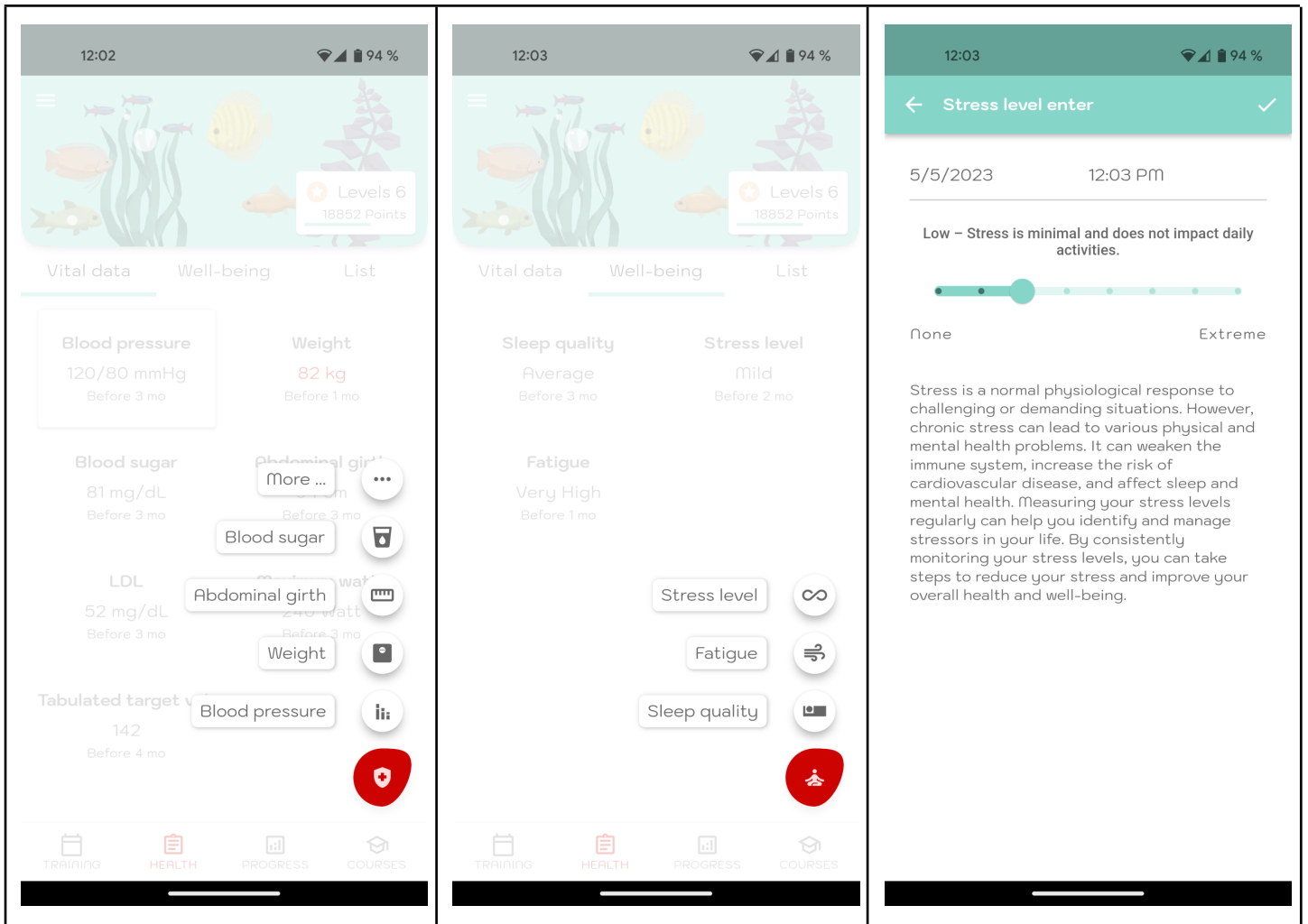
6.3 Synchronisation of blood pressure values

To synchronise the blood pressure readings of a Bluetooth-enabled blood pressure monitor, select the "Synchronise" button. The system will then automatically search for a device and synchronise the readings. Make sure that your blood pressure monitor is in Bluetooth transmission mode. You can find more information about this in the operating instructions for your device.

12:03   93 %

← Blood pressure enter   ✓

5/5/2023   12:03 PM

systolic (mmHg)   diastolic (mmHg)

Pulse

Elevated blood pressure has a detrimental effect on health and life expectancy, but is often not subjectively perceived. Blood pressure should therefore be measured from time to time.

Synchronize

6.4 Average blood pressure (heartfish Pro)

Individual blood pressure measurements are not very meaningful and are of little relevance to the attending physician. For this reason, it is very practical that in heartfish Pro the mean value of the last blood pressure measurements is calculated and displayed.
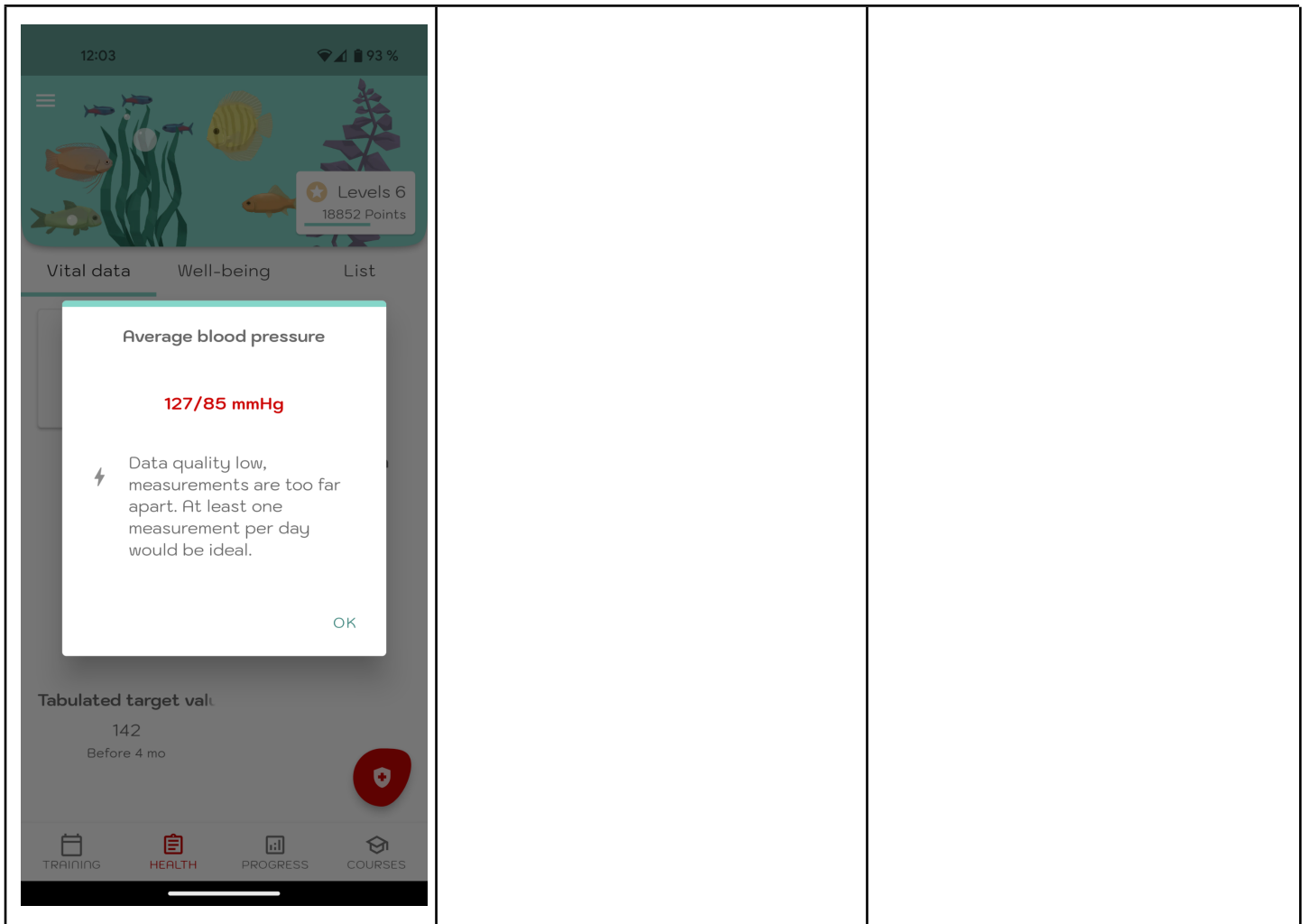
6.3 List

As with the training data, there is also a list view for the health data in which the individual values can be filtered in heartfish Pro.
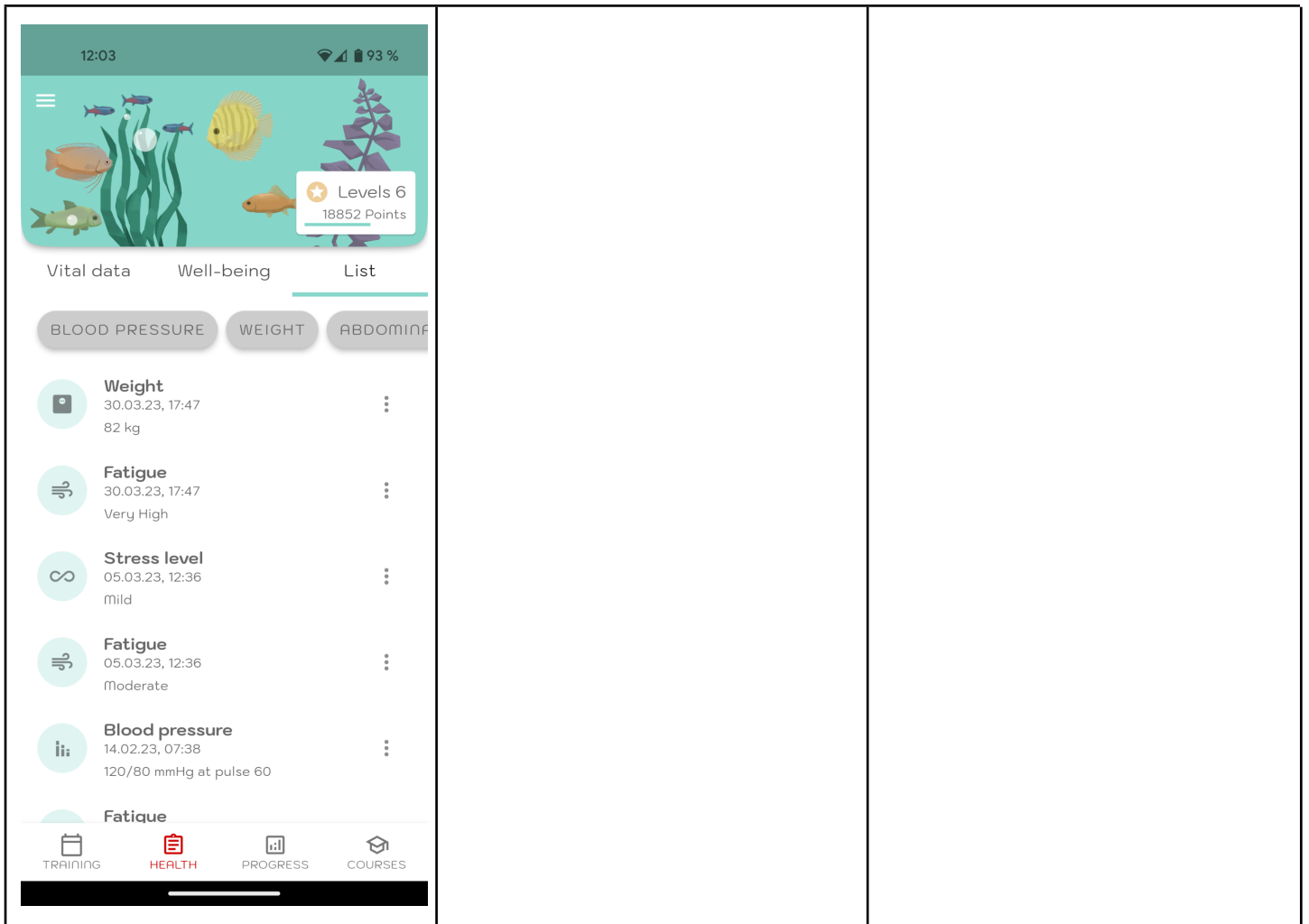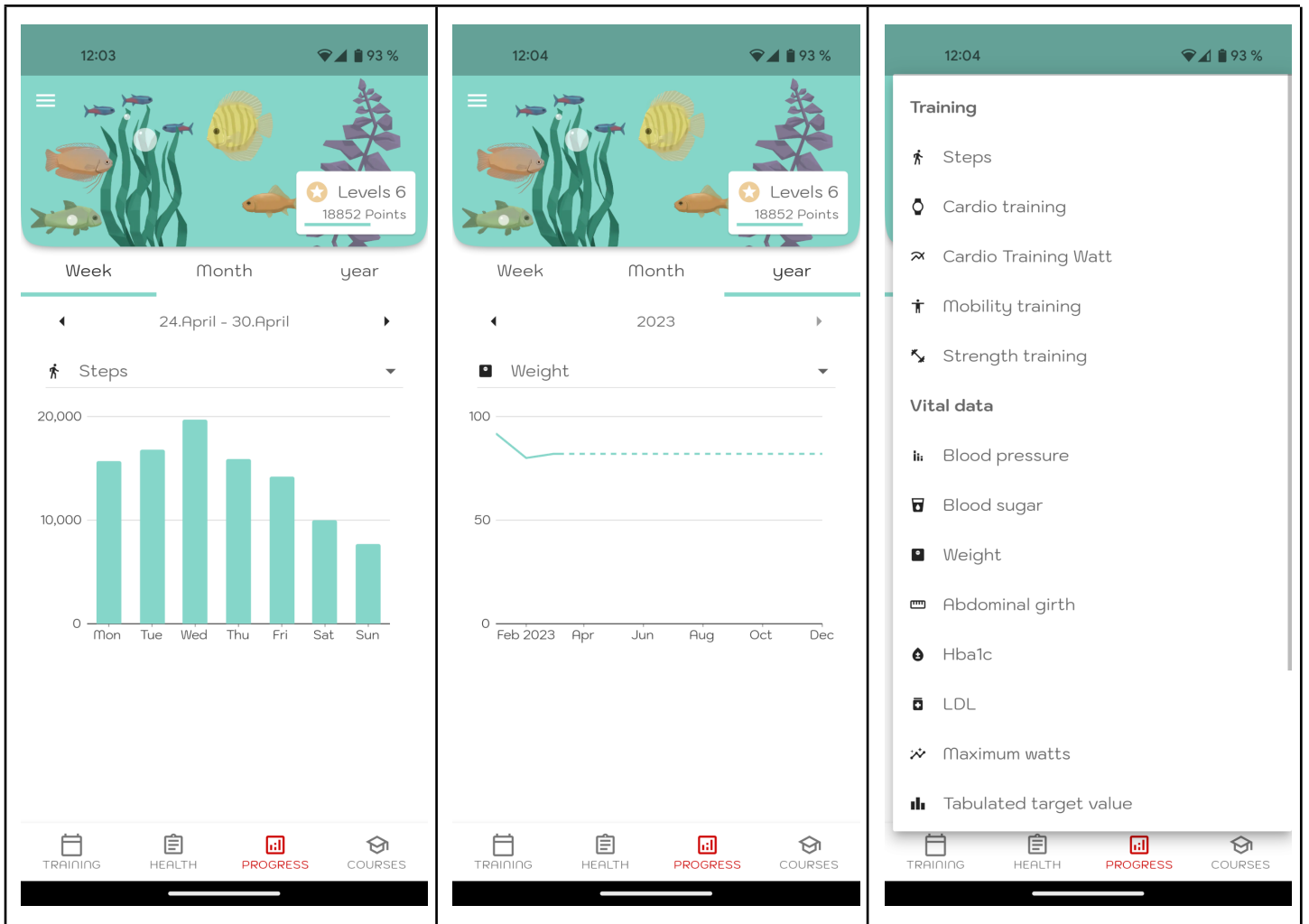
7 Progress

7.1 The progress bar

In the progress display you can track all your training and vital values. You can switch between weekly, monthly and yearly views, select different time periods and define for which values you want to see statistics.

7.2 The points system

You receive points for your activities and by collecting points you increase your research level. On the card at the bottom right of the aquarium you can see your points, your level and the progress bar to the next level. If you tap on this card, you will get more information.
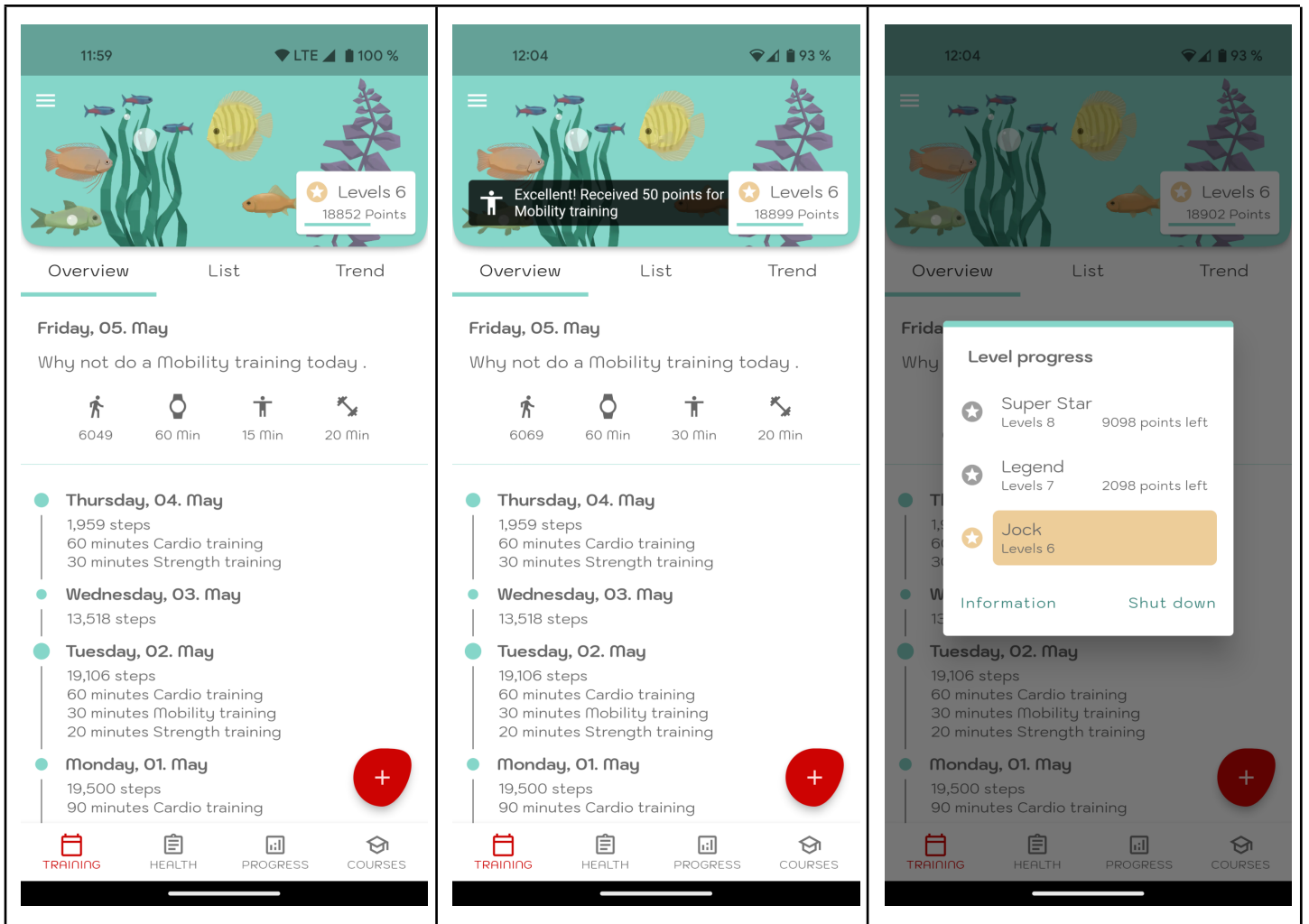
7.3 The aquarium

The aquarium is directly related to your training progress (see 5.6. Trend). Depending on how close you are to your individual weekly targets, the aquarium turns red, yellow or green.
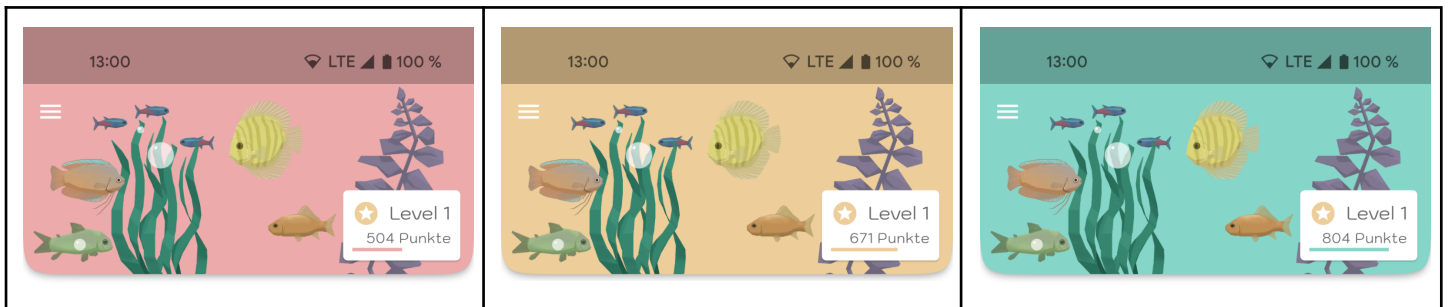
8. courses

8.1 The overview

In the overview you will find all available courses. If you have newly installed the heartfish app and have not yet added any courses, this view is empty. If you have received a course access, you can open the QR scanner via the button in the bottom right corner (with the QR symbol). If you scan a valid QR code with it, the course programme is loaded and displayed in the overview.
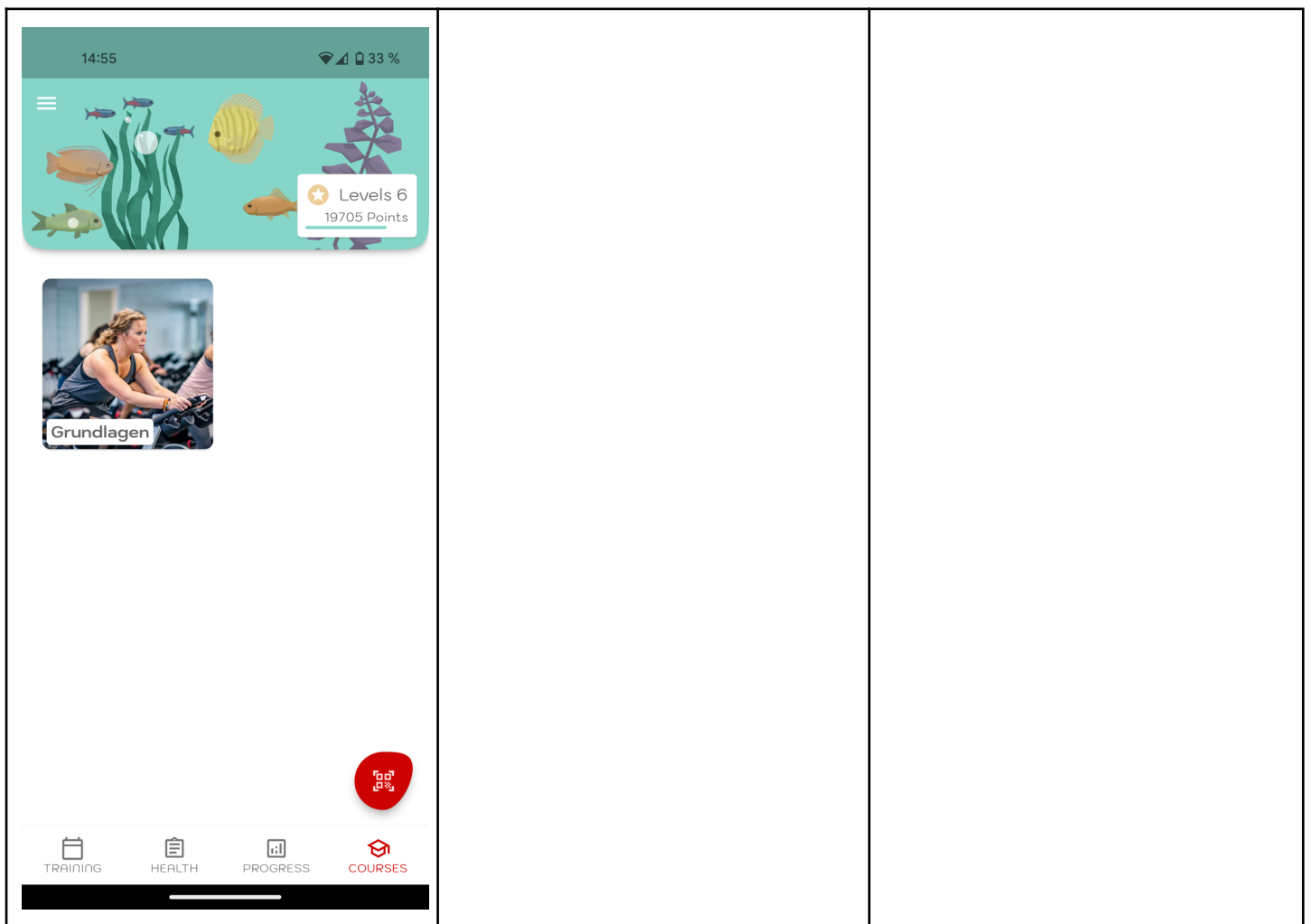

8.2 The Course View

When you select a loaded course in the course view, it opens. At the top you see the first lines of the course description. If you click on "More", the entire course description is displayed.

Below the course description you will see the course chapters, which can be expanded by tapping on the down arrow. Now you can see the individual course units in the respective chapter. If you tap on the video symbol, you will enter the chapter. You can now play the video and when you are finished, close it.

Tip: As soon as the video is running, you can open the video player menu by tapping on the picture. In the bottom right corner of the video you will then find a button that allows you to play the video in full screen mode.
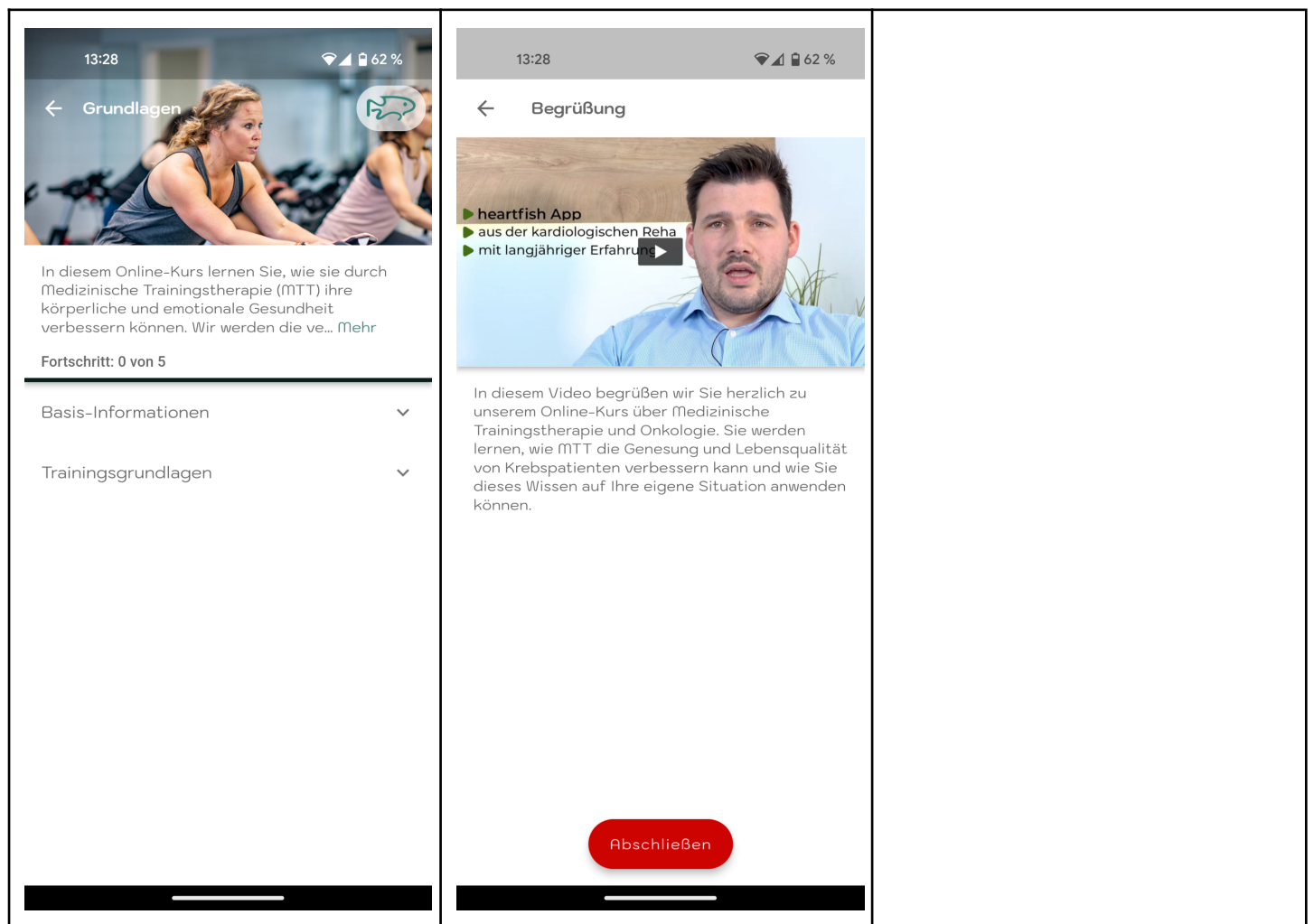

8.3 Where can I get a course?

There are different ways to obtain courses, depending on the indication and application scenario. Some courses can be purchased on heartfish.io, others can be obtained e.g. at your rehabilitation institute, from your doctor or in the outpatient clinic of your treating clinic. We are constantly working to be able to offer our content to as many patients as possible. If you have not received a course access and also do not know where you can get one, please write to us at support@heartfish.io.

9 Synchronised devices

9.1 The pedometer

heartfish uses your device's pedometer to display all the steps you have taken with your smartphone. In heartfish Pro you can also use the pedometer of a smartwatch.
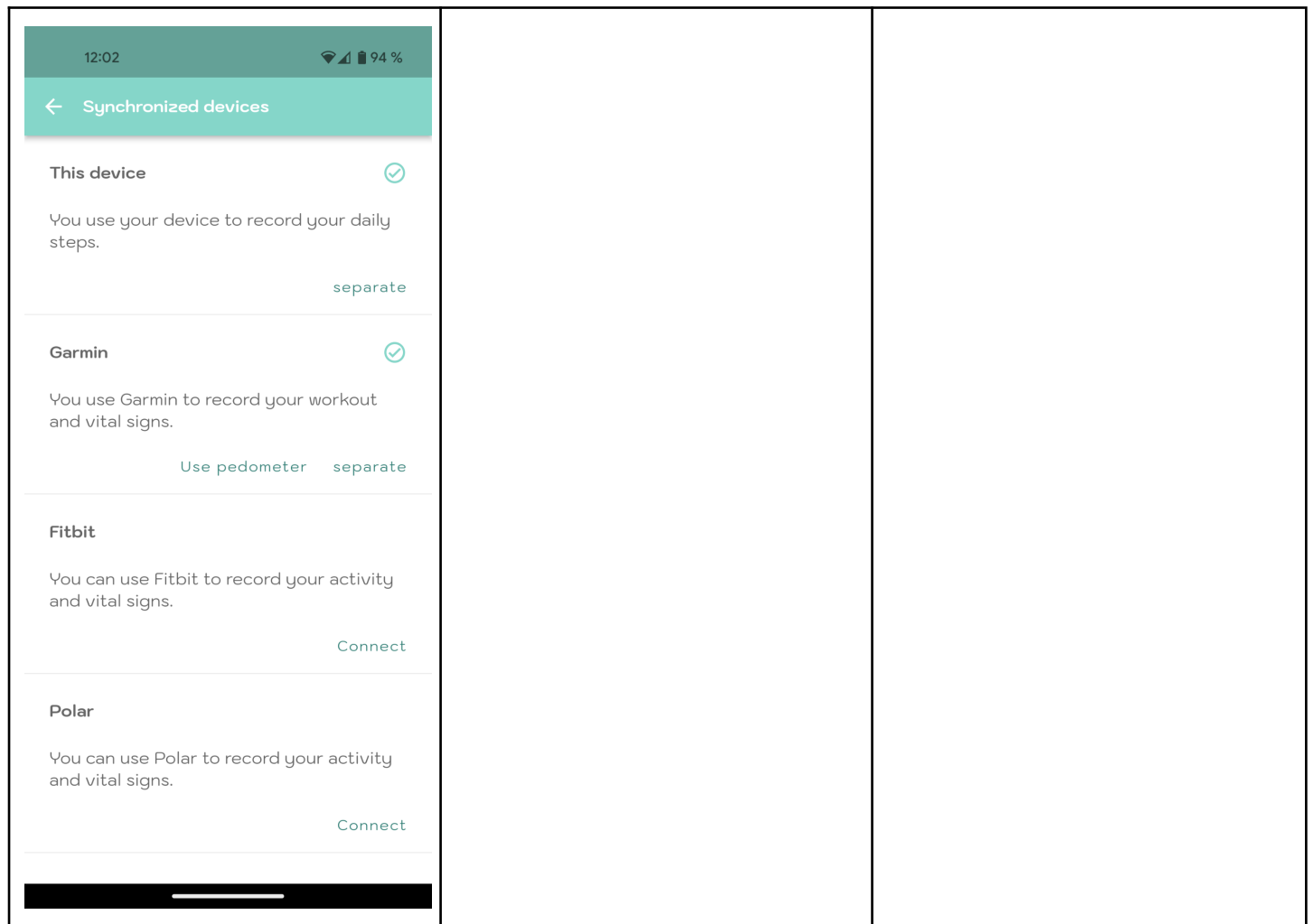

9.2 Smartwatches and wearables (heartfish Pro)

With heartfish Pro you can not only record your training activities on the device, but also synchronise training sessions from smartwatches and wearables. To do this, your heartfish account is connected to the account of your watch (e.g. Fitbit, Garmin, Polar,...). Every training session you record on your watch will automatically appear in your heartfish app.

10 Reminders (heartfish Pro)

With heartfish Pro, you can have your smartphone remind you when it's time to do a workout or measure a vital sign. Simply select what you want to be reminded of, a reminder pattern (daily or only on certain days) and the times you want to be reminded.
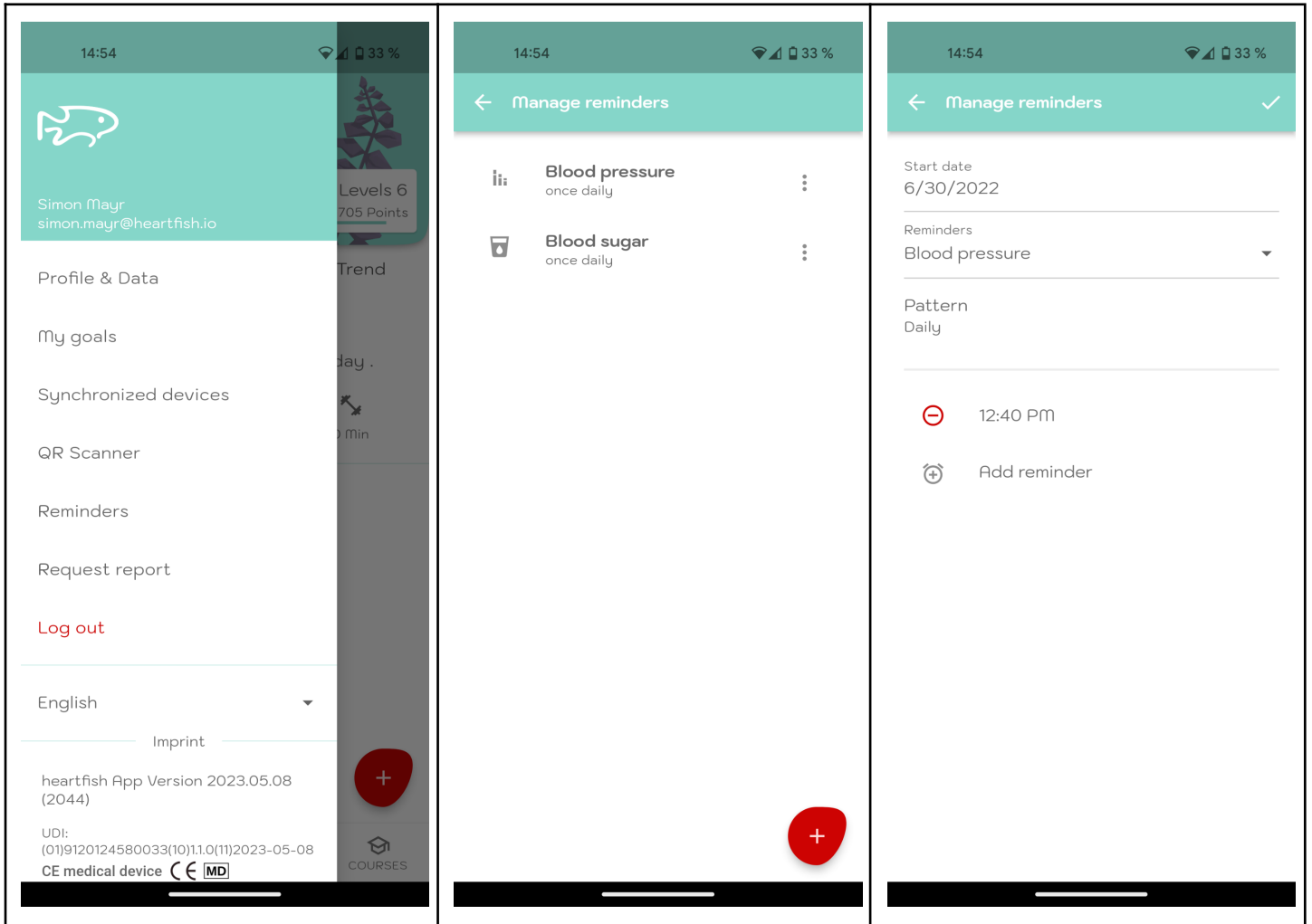
11 Reports (heartfish Pro)

In heartfish Pro you can request a PDF report to be sent to you by email at any time. This is especially handy if you want to take your data to your doctor.
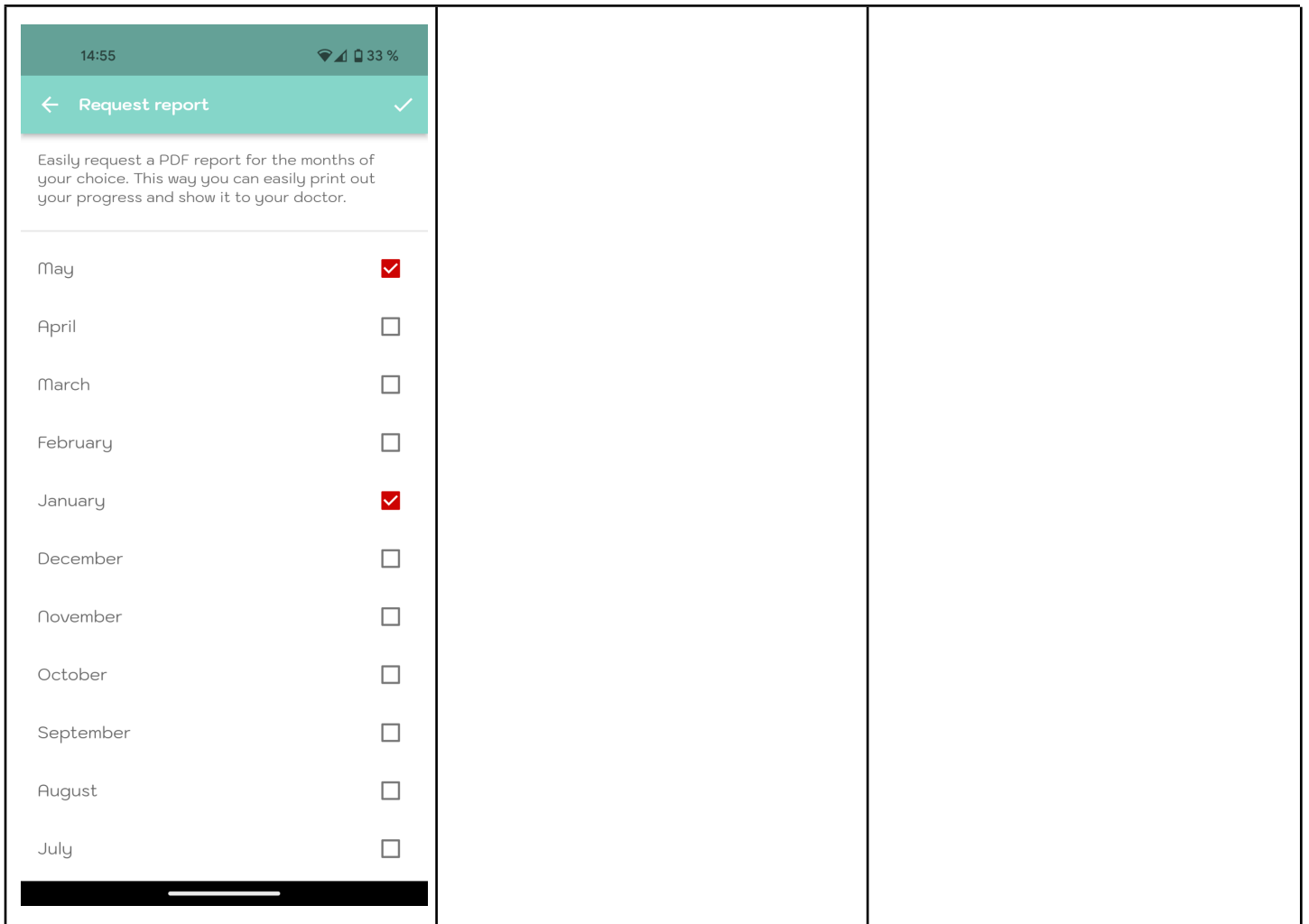
12 Uninstall

12.1 De-installation iOS

Tap and hold the heartfish app icon until it starts to wiggle. Tap on the small "x" that appears in the upper corner. You will be asked whether you want to confirm the uninstallation (by tapping on "Delete") or cancel it (by tapping on "Cancel").

12.2 Uninstalling Android

Search for apps in the settings of your Android smartphone and tap on "Uninstall" for the heartfish app. Done!

12 Data security

Your data is safe with us. This is very important to us. heartfish meets the requirements for data security and the protection of personal data in accordance with the General Data Protection Regulation (DSGVO). You can find more information in our privacy policy.

13 Help

If you have any questions about heartfish, need help using the app or have found an error or problem, please contact us directly at support@heartfish.io. In the event of serious incidents related to the use of the heartfish app, please contact heartfish support and the relevant local authorities.

14 Manufacturer

heartfish GmbH

Kaiserstrasse 76/2/34

A-1070 Vienna, Austria

E-mail: support@heartfish.io

Managing Director: Simon Mayr

UID: ATU73397246

Company register FN492497k

Place of jurisdiction: Vienna Commercial Court, Austria

$C\epsilon$

15 Representative office in Switzerland

CH	REP

Casus Switzerland GmbH
Hinterbergstrass 49
6312 Steinhausen
Switzerland

15 Representative office in Great Britain

UK	REP

Casus UKRP LTD
107-111 Fleet Street
London, EC4A 2AB
England

16 Version history

Changes to version 1.1.0

- Introduction of documentation of sleep quality, stress and exhaustion
- Introduction of video courses in the app
- Troubleshooting and performance improvement

Changes to version 1.0.0

- Introduction of a points system (see 7.2)
- Improving the pulse display (see 5.3)
- Troubleshooting and performance improvement