Manual for myQiu-Web

Introduction

What is myQiu?

myQiu is a cloud and analysis server through which we network all components from our product portfolio. The data from the user applications (Qiu, BioSign HRV smartphone app, myQiu-PC) are hosted and analyzed on myQiu.

The user has access to his measurement data, evaluations and the history of his measurement and biofeedback results via myQiu. To do this, he uses the smartphone app, myQiu-PC or the browser-based application myQiu-Web described here.

On request, it is possible to allow the accompanying therapist/coach to view the measurement data via the HRV scanner. This enables digitized support.

The therapist has the option of storing configurations (e.g. for biofeedback) or questionnaires for the user on myQiu.

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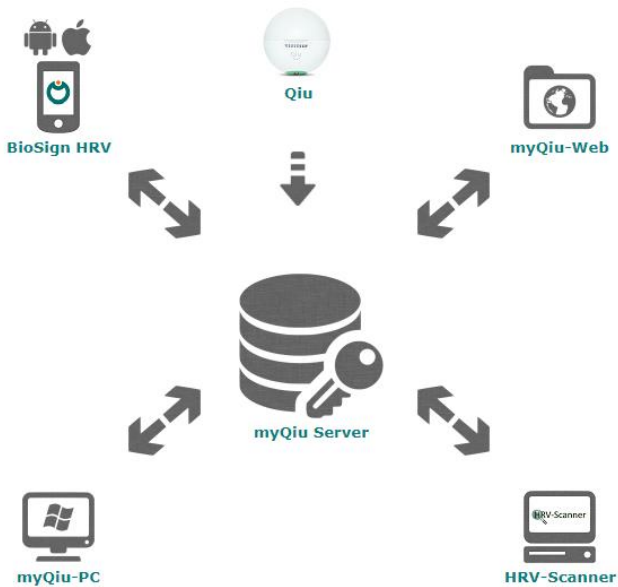
What do I need myQiu for?

If you want to use the BioSign HRV smartphone app or the myQiu-PC software, you need a myQiu account. The data from your biofeedback sessions and HRV measurements are stored, analyzed and managed on myQiu.

A myQiu account is optional for the Qiu. Measurement data from the Qiu can be saved on myQiu via the myQiu PC software and the Qiu can be used as a sensor for biofeedback and HRV measurement on the PC.

What is myQiu-Web?

myQiu-Web is a browser-based application to manage your myQiu account and access the measurements in your myQiu account. Your myQiu account is managed by the myQiu server.

Call up myQiu-Web

You can reach myQiu-Web via any Internet browser at www.myQiu.de

Create myQiu account in myQiu-Web

Go to https://www.myqiu.de/ in your Internet browser and press "Create account".
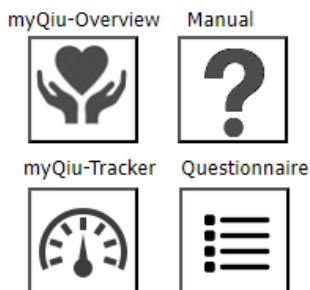
In the access window, on the "Username/Password" page, enter a username, password and a valid e-mail address.

In the next step you will be asked to enter your personal data. If you want to log in anonymously to myQiu, please proceed as follows:

Create an anonymized myQiu account

Instead of your real name, enter any name, e. g. "Eric Musterman". When entering your date of birth, you should not deviate too much, because your age will be taken into account in the evaluations. We recommend a maximum deviation of ± 1 year. You only need to state your height precisely if you also want to manage your weight data and your body mass index with myQiu. You can also enter this information later.

If you confirm your information with "Save", your myQiu access will be created. You will immediately receive a verification email from the myQiu server. Open this e-mail with your e-mail program and click on the link shown to activate your myQiu access. You will then receive free full access for 7 days.

Permanently set up myQiu access

After the 7-day trial period has expired, you can continue to use myQiu by entering a license code. You can obtain a license code, for example, from the BioSign shop (www.biosign.de).

To activate myQiu, please call up the myQiu administration after logging in with your access data.
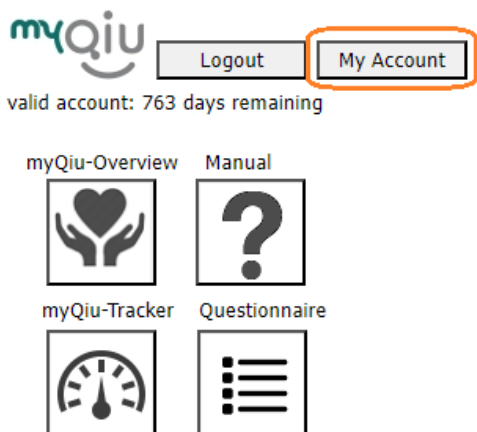
There you can specify the billing mode on the "License model" page. Select "License Code" if you have a valid license code.

How can I give my therapist access to my data

Your therapist can access your measurements in myQiu via the myQiu therapist access (via the HRV scanner).

To do this, go to the "Therapist" page in the management of your myQiu account
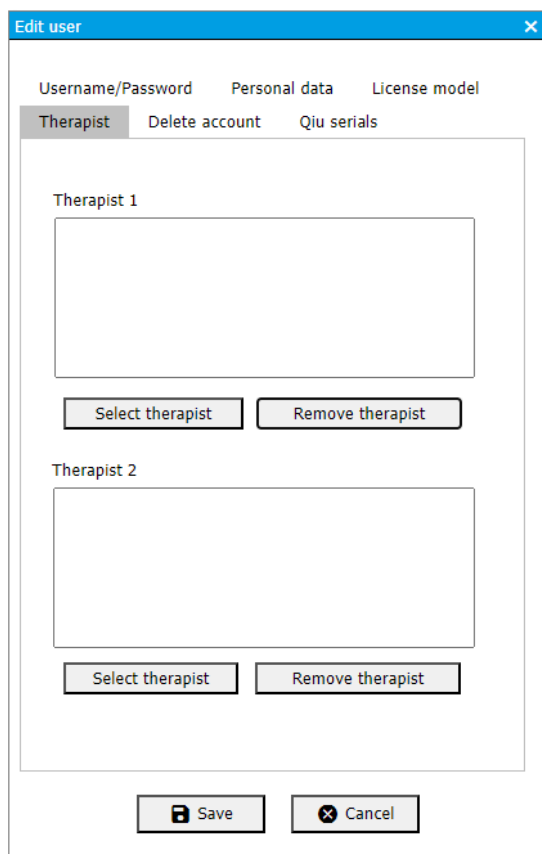
If your therapist has a valid myQiu therapist account, you can search for him here by entering his postcode:

Enter your therapist's zip code:

You will then receive a list of therapists from the postcode area and can select the desired entry.

You can give up to two therapists access to your myQiu data.

After confirming with "Apply" and "Save", your therapist will receive a request in their HRV scanner. There he will accept your request and can then see the measurements, load them into his HRV scanner with your other measurements and make settings for you (e. g. for biofeedback or questionnaires.

Once you remove a therapist's entry from your settings, they will no longer be able to access your data.

Analyse myQiu measurements

Press the myQiu overview button to call up the myQiu evaluation functions:
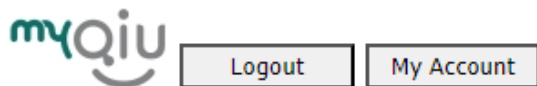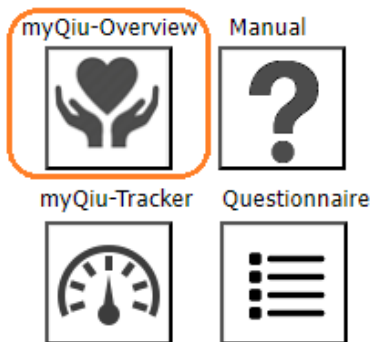
The myQiu overview

The myQiu calendar shows you an overview of your measurements.

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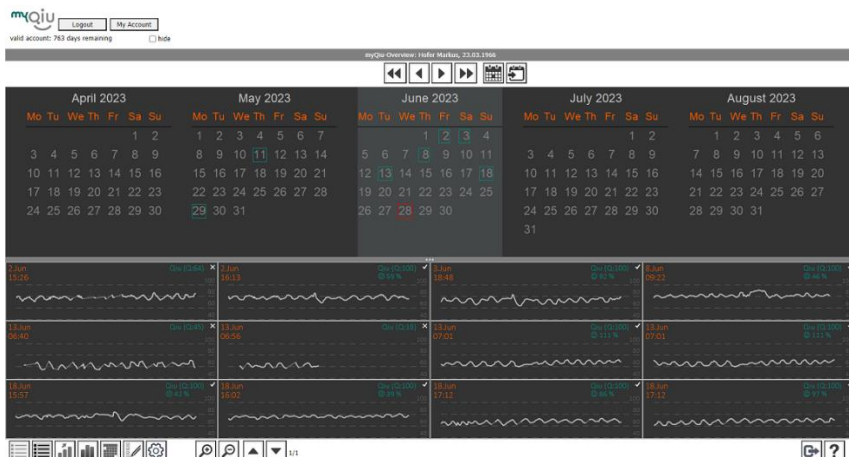
You can use the scroll buttons at the top of the screen to change the timeline. In the myQiu calendar, you can see which days myQiu exercises are available for each month. Days with exercises are marked with a green rectangle (see image).
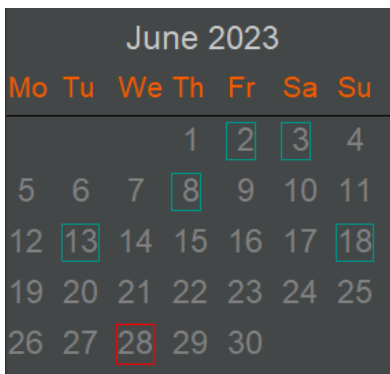
Excerpt from the myQiu calendar

For the month in the middle of the calendar (also recognizable by the lighter background), the individual exercises are displayed in the tiles below. The following information can be found in the advertisement:

Time:	Indicates when the myQiu exercise was performed.
Kind of measurement:	Shows what type of measurement is present, e. g. Qiu or PC biofeedback
Quality (Q) of measurement:	Specification of the measurement quality in percent. Persistently low measurement quality values (<60%) can indicate problems in handling the heart rate sensor. In this case, please consult your supervisor as soon as possible. He can certainly give you a tip to improve the measurement quality.
✔ or X:	Display of whether the measurement quality is sufficient to be able to evaluate the measurement.
Exercise success:	The aim of the biofeedback exercises is to achieve the highest possible synchronization of breathing and heart rate (high rhythmicity) throughout the course of the exercise. Due to the different starting positions of the individual users (cardiac patients with a low maximum rhythmization on the one hand, competitive athletes with a high maximum rhythmization on the other hand), a myQiu exercise must always be individually tailored to the user. For this purpose, the default value of the rhythmization is preset, which determines which rhythmization must be present so that there is positive biofeedback. The success of the exercise is then calculated as the ratio of the average rhythm achieved to the specified rhythm in percent. A smiley tells you at a glance how successful the exercise was. The following applies: ☹ Exercise success < 33% ☺ Exercise success 33% to 66% ☺ Exercise success >66%

	A tip: If the exercise success is regularly low, it is advisable to reduce the default value, i.e. to make the myQiu exercise a little easier. Conversely, it makes sense to make the exercise a little more difficult if the exercise is consistently successful, so that there is sufficient training stimulus.
Heart rate:	shows the course of the heart rate during the exercise.

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Zoom function

You can use the zoom function buttons to enlarge or reduce the individual tiles. Use the arrow keys to scroll through the measurements if not all measurements of a month fit on one page. The page numbers to the right of the arrow keys tell you which page is currently displayed and how many pages are available.

Zoom function buttons

Further evaluation options

You can use the buttons at the bottom left in the myQiu overview to access further evaluations and setting options from myQiu.

Keys for further evaluations and settings

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Exercise lists

These two buttons open a window that shows you a list of all measurements and exercises. The left button shows all entries of the currently selected month in the myQiu calendar, the right button shows all entries on myQiu.
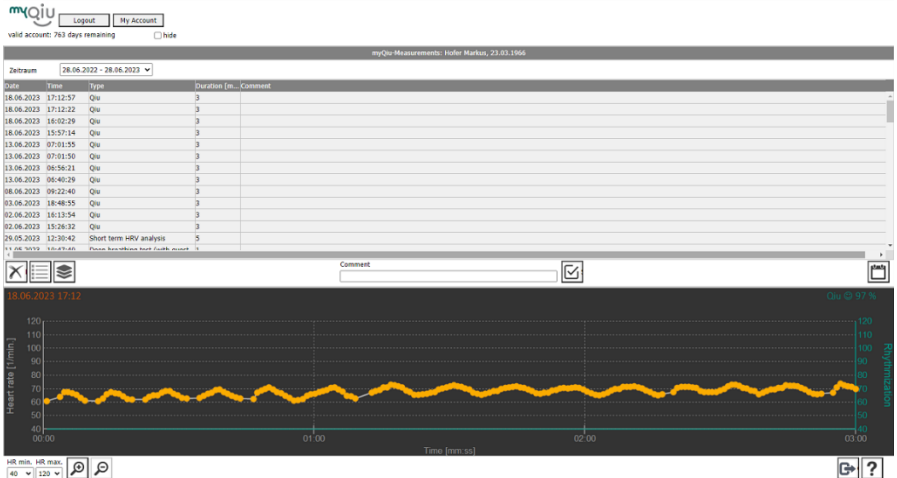
Here you can also delete individual measurements or enter a comment on the measurement. If you want to delete several measurements at once, you can mark them with the left mouse button while holding down the CTRL key (multiple selection).

Evaluation of individual measurements

You can use this button to evaluate measurements in detail. A report is generated as a PDF for this purpose. Choose which report you want to see:
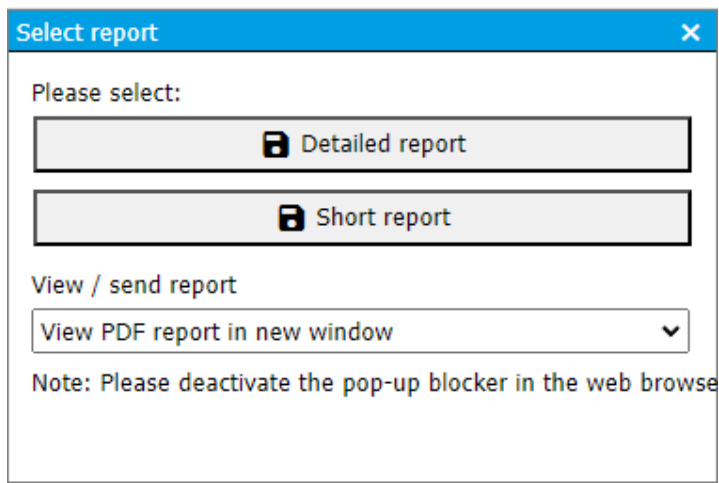
Edit questionnaires later

You can use this button to subsequently edit the answers to questionnaires.

Trendanalysis

 Pressing this button calls up the trend analysis. The trend analysis uses statistical methods (linear regression analysis) to examine your data for systematic changes over the last 30, 90 and 365 days. This allows you to judge with much greater certainty whether there is a significant change in your neurovegetative regulation. For example, if you have made lifestyle changes, e. g. through regular myQiu exercises, more exercise and targeted nutrition, the trend analysis enables you to assess whether the measures taken are effective. A prerequisite, however, is always a sufficient number of measured values of good quality. You should therefore do your Qiu/myQiu exercises as regularly as possible.

You can apply trend analysis to different categories of data. Set the type of measurement to be evaluated under "Source" at the top right. Here means:

Biofeedback:	All types of biofeedback are used, regardless of whether they are Qiu exercises or myQiu exercises on the PC.
Qiu:	Only Qiu exercises are used.
PC Biofeedback:	Only myQiu exercises on the PC are used.
Deep Breathing Test:	Only measurements of the DBT type are used.
5 min. HRV:	Only short-term HRV type measurements are used.

The trend analysis now examines whether the neurovegetative regulation has changed significantly over a period of 30, 90 and 365 days. The calculations are calculated separately for the individual components of the vegetative regulation of flexibility, tone and dynamics. Thus, a differentiated statement about the state of the vegetative regulation and its changes is possible. Further explanations of the components flexibility, tone and dynamics can be found below.

In short, flexibility is the range of heart rate variation, tone is the mean heart rate, and dynamism is the rate at which heart rate changes. These three components form the cornerstones of your vegetative regulation, so to speak. The following applies: A wide range of heart rate fluctuations, combined with rapid changes, leads to high levels of flexibility and dynamics, while a high heart rate is an expression of a low (parasympathetic) tone. For this reason, the scaling of the heart rate for the tone is inverse, i. e. low heart rates are higher in the display than higher heart rates. This enables a favorable change to be expressed by an increase in all three areas (see image).
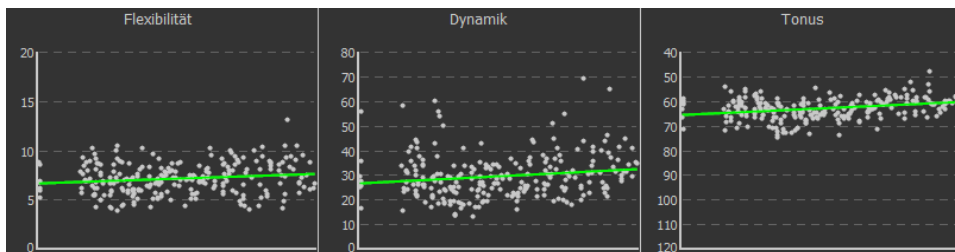
Significant improvement in regulation in all three areas. Flexibility, tone and dynamics increased over the period studied. Please note: An improved tone means a drop in heart rate over the period examined.

The result field shows you whether the change in vegetative regulation is statistically significant:

Result field shows a positive significant change

The different timelines of the trend analysis

The occurrence of changes is examined in a short-term (30 days), medium-term (90 days) and long-term (365 days) time window. This takes into account the different timelines on which changes in vegetative regulation can be mapped:

Short-term improvements are usually not so easy to achieve, since positive changes in the autonomic nervous system take time and are more likely to

be expressed in the medium term. The situation is completely different with suddenly occurring limitations in regulation, which can accompany an infection, for example, and usually subside within a few days to a few weeks.

On the middle timeline, exercise effects and other measures such as more exercise can already have a positive impact.

An improvement on the long-term level is of course the primary goal, because good vegetative regulation is the basis of any reasonable prevention. However, one should not be disappointed if this does not always and above all not always succeed year after year: Our vegetative regulation is comparatively strongly subject to the aging process. This means that if we do nothing, there is always a negative, age-related trend, so that on the long-term level, even the absence of a negative trend can be seen as a success (our vegetative nervous system then did not get older in the year of the study). However, long-term improvement is not impossible. We know of cardiac patients who have been able to achieve a significant improvement in vegetative regulation over a period of four years through regular Qiu exercises, accompanied by appropriate lifestyle changes (and thus have practically reduced the biological age of their most important regulatory system).

Die Benchmark

You can also compare the results of your exercises and measurements with the values of other users by pressing the benchmark button. Instead of the heart rate curve, you will then see columns in the tiles of the

myQiu overview. Three columns are displayed for the biofeedback exercises, labeled with the letters F (flexibility), D (dynamics) and T (tone) (see image).

Benchmark: Comparison of HRV values with a comparison group from over
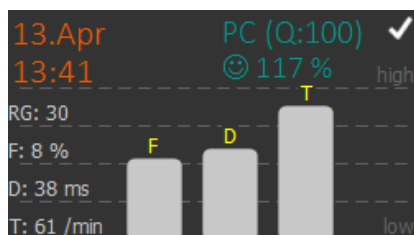
1,000 people. The level of difficulty set for the biofeedback exercise is identified by the abbreviation "RG" for degree of rhythm.

Here, too, the following applies to flexibility (F) and dynamics (D): the higher the column, the higher the measured value. The following applies to the tone: the higher the tone, the lower the heart rate. The respective actual measured values can be found in the information on the left.

As mentioned elsewhere, comparing your exercise values with the results of others is not always useful and sometimes even counterproductive. If, for example, you develop a disorder of vegetative regulation after an illness and you only achieve low HRV values, it will not do you any good to find out that your values are too low compared to other healthy people. This only creates frustration and may even take the fun out of practicing. You should not be discouraged by low values in the benchmark. Even a small improvement in your vegetative regulation can have a significant positive effect on your health.

myQiu Settings

Here you specify the measurement quality for automatic filtering. Automatic filtering ensures that measurements with poor measurement quality are not used to calculate exercise success in the trend analysis. Your measurement quality should regularly be above 70%. If

this is not the case, you should consult your supervisor. He will certainly have a tip for you on how to improve the measurement quality. For example, rubbing your earlobes or fingers vigorously for a few seconds before starting the exercise often helps to increase blood flow and thus get a better sensor signal.

Additional functions in myQiu

myQiu can do more than just manage your myQiu exercises and HRV measurements. You can also record your blood pressure values, your weight and your blood sugar values, save them on myQiu and evaluate them.

All measured values are tabulated. With the help of the trend analysis, you can reliably analyze whether the blood pressure has changed systematically in the last 30, 90 and 365 days.
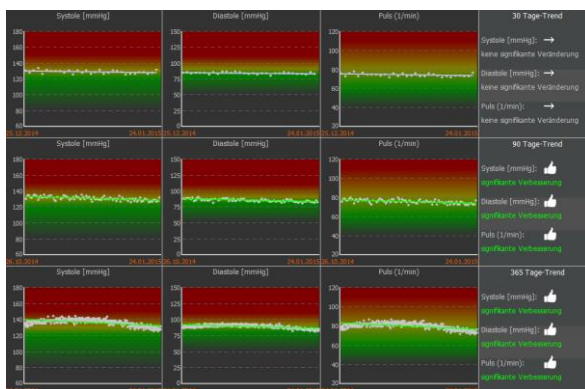
Reliably detect changes in blood pressure using trend analysis. The color scale follows the traffic light principle. The red areas indicate blood pressure values that are considered unhealthy in the long term.

To switch between managing blood pressure, weight and blood sugar, select the desired category in the selection box:
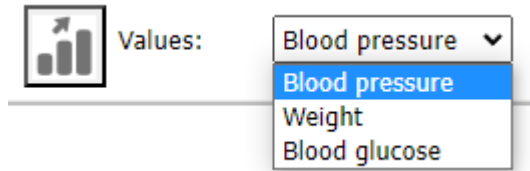
selection box

The management of your body weight also offers the option of entering a desired weight.

A desired weight can be set

myQiu also calculates the BMI (body mass index) for you, but this requires the correct entry of your height in your master data.

With the help of the target weight, the trend analysis reliably shows you whether your weight is approaching the desired value.
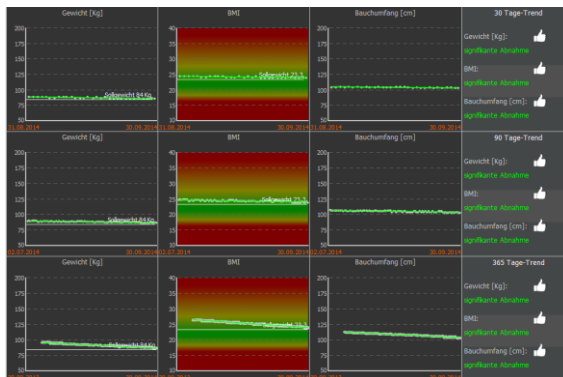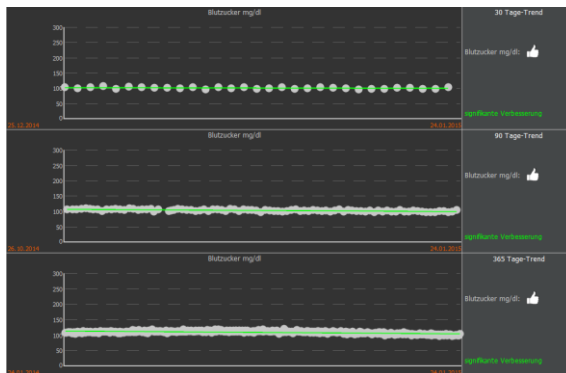

The red areas indicate BMI values that can lead to long-term health impairment.

Blood sugar

If you manage your blood sugar values with myQiu, please make sure to set myQiu to the unit that applies to you (mmol/l or mg/dl) and if possible, not to change this unit.
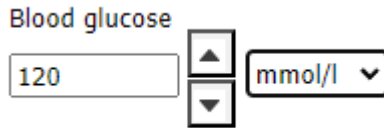
Setting the blood glucose unit

Fasting blood glucose trend analysis for 30, 90 and 365 days

Please only enter your fasting blood sugar values in myQiu so as not to falsify the trend analysis.

Flexibility, dynamics and tone

The ability to regulate the body (and mind) is vital. Only a well-functioning regulation ensures that we can adapt to the changing demands of everyday life and cope with them successfully without damaging our health. Disorders of regulation are dangerous and make us ill if they last longer.

The central control point of body regulation is the autonomic nervous system, consisting of our gas pedal (sympathetic nervous system) and our

body's own brakes (parasympathetic nervous system). The parasympathetic nervous system is particularly important for our health. It ensures optimal body regulation and regeneration. A disturbance of the parasympathetic nervous system is now associated with the development of many diseases such as cardiovascular diseases, cancer and Alzheimer's.

The state of our inner control system can be determined by heart rate analysis. Since the heart rate is measured with every myQiu exercise, we can use the heart rate analysis to estimate the functional status of the parasympathetic nervous system.

For this assessment of the parasympathetic function, myQiu provides you with a "benchmark" analysis (see chapter 7.3.3, page 18), which we will take a closer look at below:

When analyzing the heart rate, which is mainly modulated by the parasympathetic nervous system in resting conditions, we consider three characteristic features in the heart rate curve, which we call flexibility (F), dynamics (D) and tone (T).

Flexibility (F)

Flexibility describes the fluctuation range of the heart rate. A high flexibility value reflects a good adaptability of the cardiovascular system. Permanently low flexibility values are an expression of a weakness in the parasympathetic nervous system and can impair health.
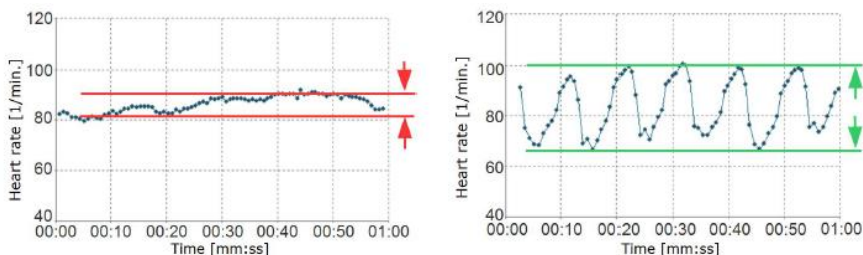
Heart rate curves with low (left image, heart patient) and high (right image, athlete) range of fluctuation.
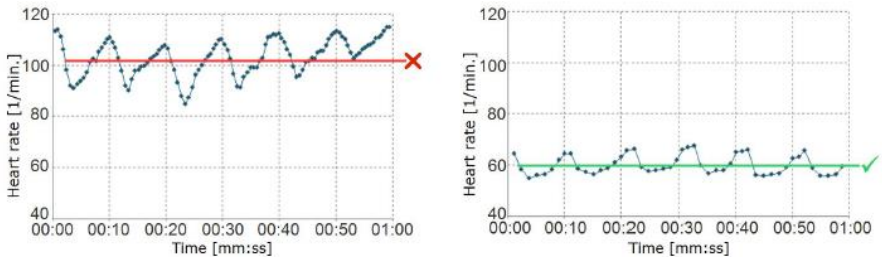
Dynamics (D)

An essential feature of an efficient parasympathetic nervous system is the speed at which information processing and body regulation takes place. Comparable to the brake test in a car, the faster the system comes to a "standstill", the more powerful the built-in brake is.
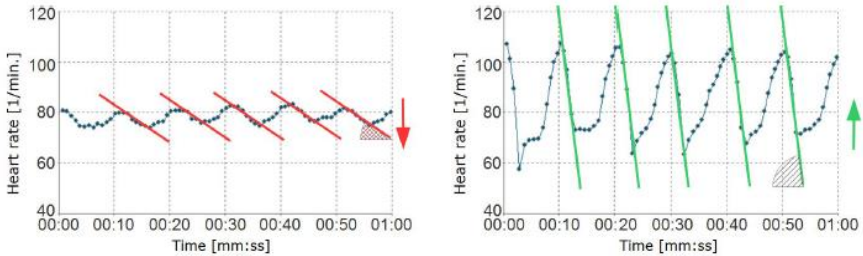
Heart rate curves with low (left image, heart patient) and high (right image, athlete) dynamics. In the picture on the left, it takes up to 7 heartbeats from the maximum to the minimum heart rate, although the heart rate only decreases by about 10 beats per minute. On the right, the dynamics are much higher: the heart rate decreases by 40 beats per minute within 4 beats.

Tone (T)

A good basic parasympathetic tone is expressed in a lower heart rate. For example, people with a heart rate > 90/min have a significantly higher health risk than people with a heart rate < 60/min.

Heart rate curves with low (left image) and high (right image) tone.

The concept of flexibility, dynamics and tone enables an exact description of the vegetative regulation and, in the case of a regulation disorder, provides information as to which area of the autonomic regulation is particularly affected.

Examples of different benchmarks. a) trained competitive athlete, b) typical finding with low physical fitness and not very "mindful" lifestyle, c) chronic stress with high sympathetic activity at rest, d) parasympathetic dysfunction in a 70-year-old CHD patient (insufficient parasympathetic activity)

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