seca 115

Instructions for Use
for
Physicians and Assistants

from software version 1.4 from Build 560

seca®
Precision for health

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1. SYSTEM DESCRIPTION

1.1 Intended use

The **seca 115** PC software is for administering weight, height, bioimpedance and vital measurements and for calculating automatically parameters such as FMI (fat mass index) which can be derived from these measurements. Results are displayed in graphical form and provide support with the following medical issues:

- Documentation of weight changes
- Documentation of energy expenditure and energy reserves
- Documentation of cardiometabolic risk
- Documentation of metabolic activity and the success of a training program, e.g. within the framework of rehabilitation or physiotherapy
- Documentation of a patient's fluids status and documentation of changes in fluids
- Documentation of changes in vital signs

1.2 Description of function

Installation options

The **seca 115** PC software can be installed in the form of a client/server solution or a standalone solution.

The **seca 115** PC software consists of the application software and a seca patient database, together with communication and evaluation modules.

For client/server operation, the application software is installed on PC workstations (clients). The seca patient database and the communication and evaluation modules are installed centrally on a server. All clients access the server and use the seca patient database and communication and evaluation modules there.

For standalone operation, the application software, the seca patient database and the communication and evaluation modules are installed on the same PC workstation.

seca mBCA/mVSA data transmission

seca medical Body Composition Analyzers (mBCAs)/mVSAs have an Ethernet interface and can communicate with the **seca 115** PC software in a network.

The network connection allows a seca mBCA/mVSA to use both the seca patient database and the special print function of the **seca 115** PC software.

The **seca mBCA 525** and **seca mVSA 535** models can be configured so that the seca patient files and user accounts on the device are automatically synchronized with those of the **seca 115** PC software.

The link between the mBCA/mVSA and the **seca 115** PC software can be made via WiFi or Ethernet.

Device	WiFi	Ethernet	Automatic synchronization
seca mBCA 515/514	-	•	-
seca mBCA 525	•	•	•
seca mVSA 535	•	•	•

Transmission of data by seca scales and stadiometers

seca scales and stadiometers from the **seca 360° wireless** system can communicate with one another wirelessly and transmit data to the **seca 115** PC software. For this to happen, the **seca 360° wireless USB adapter 456** must be connected to a PC on which at least the **seca 115** application software is installed.

seca scales with an RS232 interface can transmit data to the PC software by wired connection.

Managing seca patient files

seca patient files can be created in the **seca 115** PC software or on a seca mBCA/mVSA. seca patient files are saved in the seca patient database of the **seca 115** PC software. Alternatively, seca patient files can be saved on a USB memory stick. The USB memory stick has to be "initialized" for this purpose.

"Initializing" is a **seca 115** PC software function. This function allows the administrator to create an empty seca patient database on a USB memory stick.

seca patient files and seca patient databases contain exclusively data necessary for working with seca products or determined using seca products. seca patient files can only be managed and edited using the **seca 115** PC software.

The export and import functions of the **seca 115** PC software can be used for exchanging data with surgery and hospital information systems.

Recording weight and height

On scales and stadiometers from the **seca 360° wireless** system and on seca scales with an RS232 interface, it is possible to start recording weight and height directly from the **seca 115** PC software.

Measured results are sent from the **seca 360° wireless** devices to the PC software. Alternatively, measured values can be entered manually in the **seca 115** PC software.

Determining body composition

Measurements with a seca mBCA (determines body composition by means of bioimpedance measurement) cannot be started from the **seca 115** PC software.

The results of a bioimpedance measurement are assigned to a seca patient file directly on the seca mBCA. The seca patient file is transmitted to the seca patient database of the **seca 115** PC software.

The **seca 115** PC software can only administer bioimpedance measurements determined using a seca mBCA or a seca mVSA.

Recording vital signs

Vital signs (blood pressure, body temperature, pulse rate and oxygen saturation) determined using a seca mVSA can be transmitted to the **seca 115** PC software by WiFi or Ethernet. Alternatively, vital signs can be entered in the **seca 115** PC software manually.

Evaluation

Measured results are evaluated in graphical form based on scientifically-established formulas. In-house studies by seca established formulas for determining the parameters total body water (TBW), extracellular water (ECW), fat-free mass (FFM) and skeletal muscle mass (SMM) for arms, legs, torso and the whole body. In these studies, in-house reference values were determined for the following parameters to allow normal ranges to be shown: bioimpedance vector analysis (BIVA), mass indices (FMI, FMMI), phase angle (φ).

Measured results for the vital signs blood pressure (NIBP), temperature (TEMP), pulse rate (PR) and oxygen saturation (SPO_2) are displayed graphically. There is **no** evaluation of vital signs based on references or normal ranges.

Administration of user data

The following roles can be assigned to users of the **seca 115** PC software: physician, assistant or administrator. User accounts can only be set up or edited by an administrator. A user name and password are required for access to the **seca 115** PC software. If a user account is set up for the **seca 115** PC software, the **seca 115** PC software also generates a user PIN. The user PIN allows access from a seca mBCA to the seca patient database of the **seca 115** PC software.

Update of the PC software

When the **seca 115** PC software is updated, the seca patient database and its contents are retained. The seca patient database is adapted to suit the new version of the **seca 115** PC software. After the update is complete, it will no longer be possible to access the seca patient database with older versions of the **seca 115** PC software.

Compatibility with seca measuring devices

Version 1.4 from Build 560 upwards of the **seca 115** PC software is compatible exclusively with the following device software versions:

Device	Software version
seca mBCA 515/514	1.1 from Build 550
seca mBCA 525	1.0 from Build 600
seca mVSA 535	1.0 from Build 600

There is no downward compatibility with seca mBCAs/mVSAs on which older versions of the device software are installed.

For a summary of technical modifications, see the section entitled “Technical modifications” on page 66.

The **seca 115** PC software has unlimited compatibility with scales and stadiometers from the **seca 360° wireless** system and with seca scales with an RS232 interface.

1.3 User qualification

Installation and administration

The **seca 115** PC software may only be installed and administered by experienced administrators or hospital technicians.

Measuring mode

The **seca 115** PC software may only be used by persons with sufficient expertise.

2. SAFETY INFORMATION

2.1 Safety rules in the instructions for use

DANGER!
Identifies an exceptionally hazardous situation. If you fail to take note of this information, serious irreversible or fatal injury will result.

WARNING!
Identifies an exceptionally hazardous situation. If you fail to take note of this information, serious irreversible or fatal injury may result.

CAUTION!
Identifies a hazardous situation. If you fail to take note of this information, minor to moderate injury may result.

ATTENTION!
Identifies possibility of incorrect operation of the product. If you fail to take note of this information, the device may be damaged or the measured results may be incorrect.

NOTE:
Includes additional information about use of the product.

2.2 Basic safety information

Using the software

- Please take note of the instructions in these Instructions for Use.
- Carefully store the installation DVD and the user documentation it contains. The user documentation is a component of the PC software and must be available at all times.
- Only install the **seca 115** software on PCs equipped with an antivirus program. Always keep your antivirus program up to date to protect your computer system from current and future malware. The **seca 115** software is protected from manipulation and was checked for malware at the time the software was created.
- Use the **seca 115** PC software only for the specified intended use.
- Use only mBCAs/mVSAs, scales and stadiometers from seca in combination with the **seca 115** software.
- Keep other medical electrical devices, e.g. high-frequency surgical devices, a minimum distance of approx. 1 meter away to prevent incorrect measurements or wireless transmission interference.
- Keep high-frequency devices such as cell phones and televisions, for example, a minimum distance of approx. 1 meter away to prevent incorrect measurements or wireless transmission interference.
- The actual transmission output of high-frequency equipment may require minimum distances of more than 1 meter. For details, go to www.seca.com.

Using measured results

CAUTION!

Patient hazard

In order to avoid misinterpretations, test results for medical use must be displayed and used in SI units (weight: kilogrammes, length: metres) only. Some devices offer the ability to display test results in other units. This is only an additional function.

- Use the results exclusively in SI units.
- The use of measurement results in non-SI units is the sole responsibility of the user.

NOTICE!

Inconsistent measuring results

- Before you electronically save measurement values determined using this device and use them further (e.g. in seca PC software or in a hospital information system), make sure that the measurement values are plausible.
- If measurement values are transmitted to seca PC software or a hospital information system, make sure prior to further use that the measurement values are plausible and are assigned to the correct patient.

NOTICE

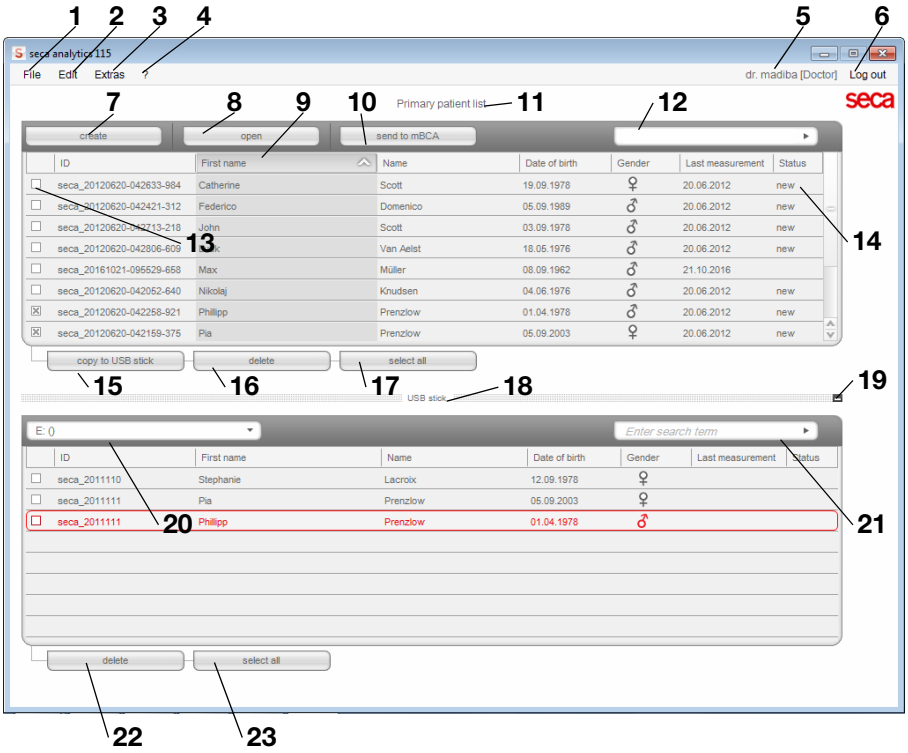
Results not comparable to other devices

Results of bioelectric impedance measurements are not interchangeable with measurements obtained from different manufacturers' devices. Performing follow-up measurements using devices other than seca mVSAs/mBCAs may produce inconsistent data and lead to misinterpretation of measurement results.

- Make sure to perform follow-up measurements using seca mVSAs/mBCAs only.

3. OVERVIEW

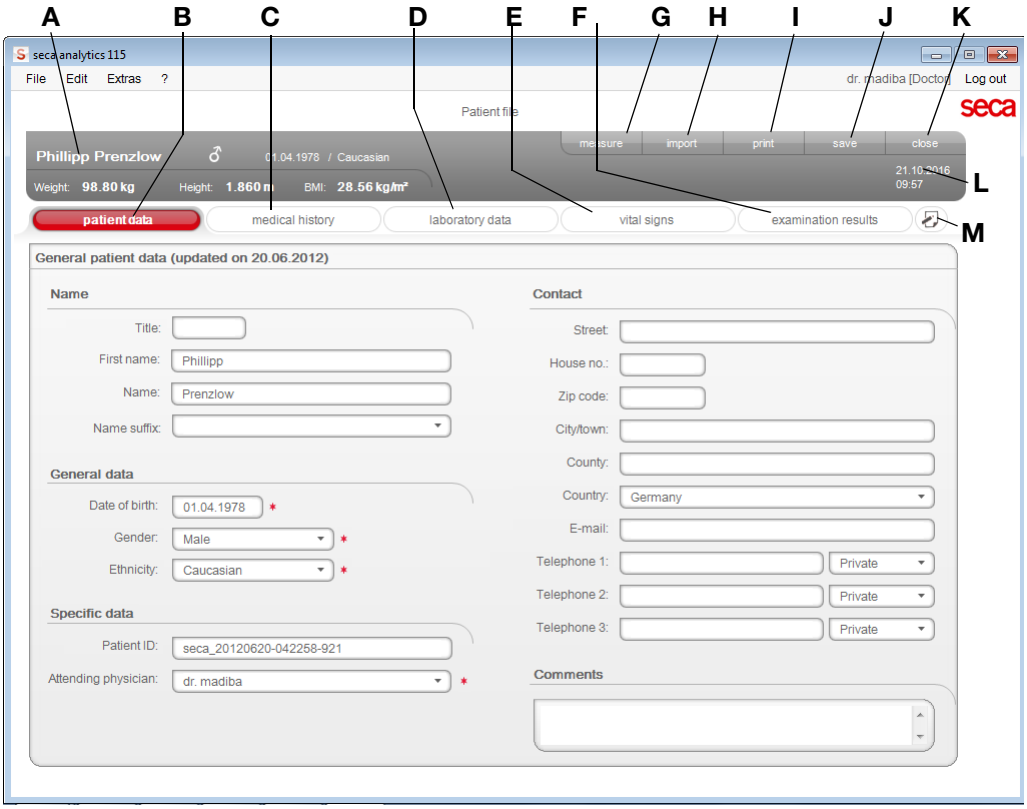
3.1 seca patient list



No.	Control	Function
1	**File**	The following functions can be accessed using this menu element: • **CSV export** • **Exit**
2	**Edit**	The following functions can be accessed using this menu element (only with aseca patient file open): • **Cut** • **Copy** • **Paste** Also as a context menu - right-click
3	**Extras**	The following functions can be accessed using this menu element: • **References** • **User-specific modules** • **Measuring device administration** • **Printouts ...** • **Patient texts ...**
4	**?**	The following functions can be accessed using this menu element: • **Product information** • **Instructions for Use** • **Administrator manual**
5	Registered user [role]	The following roles are provided: • **Administrator** • **Physician** • **Assistant** Changes can only be made by users with the **Administrator** role.
6	**log out**	Open the login dialog (enter user name and password) to log in another user
7	**create**	Create a new seca patient file in the main patient list
8	**open**	Open a seca patient file in the main patient list
9	Column sorting	• Up arrow: sort from A - Z • Down arrow: sort from Z - A

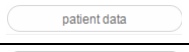
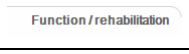
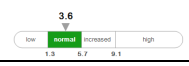
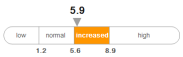
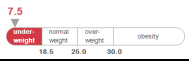
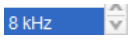
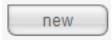
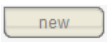
No.	Control	Function
10	**send to mBCA**	Send seca patient file to a seca mBCA
11	Main patient list	Displays seca patient files: • data entered in the main patient list • data imported from the USB memory stick
12	Search window	Search for seca patient files in the main patient list. • "Asterisk search" - e.g. "Mi*" to find Miller • Back to the complete list with empty search
13	Checkbox	• Activates a seca patient file. • Clicking buttons in the seca patient list affects all "activated" seca patient files.
14	Selection bar	Indicates which seca patient file is currently selected. Clicking buttons has no effect on the selected file (cf. "Checkbox")
15	**copy to USB stick**	Copy seca patient files selected in the main patient list to a USB memory stick, e.g. for use on an mBCA
16	**delete**	Delete "activated" seca patient file (seca patient file can be restored by users with the **Administrator** role)
17	**select all** **deselect all**	• Select all seca patient files in the main patient list in order to carry out actions for all • Deselect all seca patient files in the main patient list if action for all has been carried out or if no action is to be carried out
18	Patient list on USB memory stick	Displays seca patient files saved on a USB memory stick • seca patient files copied from the main patient list • seca patient files newly created on an mBCA
19	Show/hide patient list from the USB memory stick	• seca patient list on the USB memory stick is automatically shown at system start • List can be hidden in order to display more entries in the main patient list
20	Drive selection window	For selecting the USB memory stick
21	Search window	Search seca patient files on the USB memory stick. • "Asterisk search" - e.g. "Mi*" to find Miller • Back to the complete list with empty search
22	**delete**	Delete seca patient file on the USB memory stick (seca patient file cannot be restored on the USB memory stick)
23	**select all** **deselect all**	• Select all seca patient files on the USB memory stick in order to carry out actions for all • Deselect all seca patient files on the USB memory stick if action for all has been carried out or if no action is to be carried out

3.2 seca patient file



	Symbol	Meaning
A	Patient info	Summary of the most important patient data
B	**patient data**	Enter, edit, and view the patient's master data
C	**medical history**	Enter, edit, and view the patient's medical history
D	**laboratory data**	Enter, edit, and view the patient's laboratory data Data can be imported if an interface to the hospital information system is programmed
E	**vital signs**	Enter, edit, and view the patient's vital signs.
F	**examination results**	View examination results
G	**measure**	• Start measuring process for weight and height • Send seca patient file to a seca mBCA
H	**import**	Import patient data **Note:** Configuration or programming of an interface to the patient data management system (PDMS) required
I	**print**	Print results report or save as PDF
J	**save**	Save changes and additions to the seca patient file
K	**close**	Close the seca patient file and return to the seca patient list
L	Date/time	Settings are adopted from the operating system
M	**comments**	Add and view comments about the seca patient file

3.3 Color symbols and other controls

Control/display	Symbol	Meaning
Tab		White: tab not selected
		Red: tab selected
Typeface, evaluation modules		Red, with selection bar: module is active
		Bold: new data available
		Gray: module not available
Typeface, measurements		Red, with selection bar: measurement selected, details shown Alternatively: red, with checkbox: measurements selected, details are displayed
		Bold: new measurement
Footnotes		Codes by measuring method • 1: Standing BIA measurement • 2: Lying BIA measurement • 3: Lying BIA measurement with vital signs • 4: Vital signs
Typeface, evaluation parameters		Parameter red: value outside normal range
Display, evaluation		Green: value within normal range
		Orange: value elevated
		Red: value outside normal range
Handles		Selection of several measurements: • drag left handle upwards: add measurements of a more recent date. • drag right handle downwards: add measurements of an older date
Comment symbol for evaluation parameter		• Comment for evaluation parameters present • Write comment for evaluation parameter
Comment symbol for seca patient files		Write and edit comments for seca patient files
Detail symbol		Detail view available for results graph
Drop-down triangles		Gray: function available
		Light gray: function not available
Data transmission		Data transmission in progress
		Data transmission successful
		Data transmission failed
Drop-down menu		Selected function
		Drop-down menu open
Checkboxes		Empty: function deactivated/measurement result deselected
		Cross: function activated/measurement result deselected
Buttons		Gray: function available
		Light gray: function not available

Control/display	Symbol	Meaning
Parameter		Select individual parameter Deselect individual parameter
		Select all parameters Deselect all parameters

3.4 Identification on the packaging

Mod	Model number
S/N	Serial number
	Observe user manual
	Device conforms to EC directives
	Manufacturer's address
	Packaging material can be disposed of through recycling programs
	Protect from moisture
	Fragile
	Permitted min. and max. temperature for transport and storage
	Permitted min. and max. moisture for transport and storage

4. INSTALLATION/UPDATES

The PC software may only be installed and updated by experienced administrators or hospital technicians.

Information about the software version installed and about the availability of updates can be found in the menu line of the PC software at "**? ➔ Product information**".

For information about the items below, check the menu line of the software under "**? ➔ Administrator manual**":

- Installation options
- Configuration options
- Uninstalling the 115 PC software
- Interaction of the **seca 115** with other software

In the event of questions about the system currently installed on your PC and if you want to make any changes, please contact your administrator.

ATTENTION!
Loss of data
Incorrect installation or incorrect changes to the installation can lead to loss of data and, as a result, to misdiagnoses.

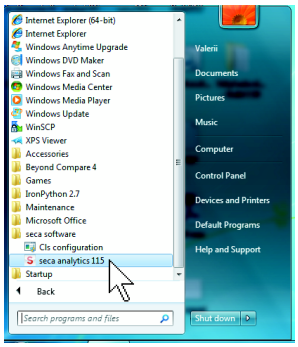
- ▸ Make sure the installation or changes to the installation are carried out by an experienced administrator or hospital technician.

5. OPERATION

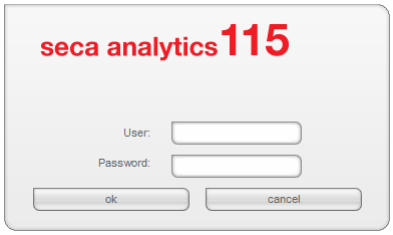
5.1 Starting/exiting program

Opening the program

1. Click “Start ➔ Programs ➔ seca ➔ seca medical software”.



The login dialog opens.



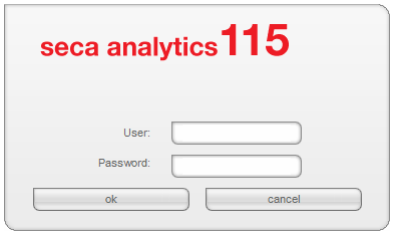
2. Enter your user name.
3. Enter your password.

   NOTE:
   User name and password are created by the administrator. If you want to change the user name or password, please contact your administrator.

4. Confirm your entries with **ok**.
   The seca patient list opens.

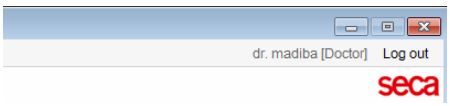
Logging off / switching user

- Click on **log out**.
  The login dialog opens.
  Another user can log in.



Exiting program

- Click on the cross symbol.
  The program will close.



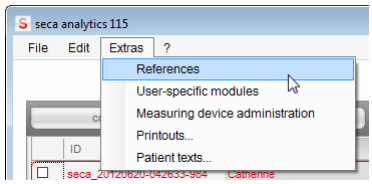
5.2 “Extras” menu

Changing references

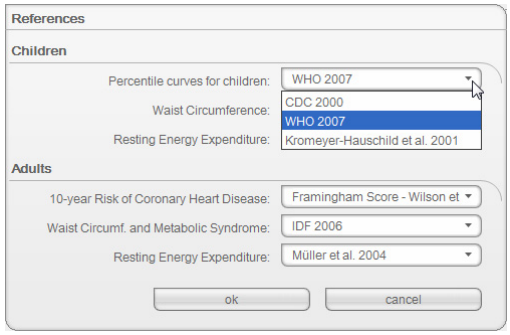
The **seca 115** PC software evaluates measured results using references. References are formulas and comparison values determined in clinical studies. During the installation and configuration of the **seca 115** PC software, your administrator sets in which country you are operating your **seca 115** PC software. With this setting, the references normally used in your country are preset automatically.

You can change the preset references to suit the regulations applying in your institution and your personal preferences. To do so, proceed as outlined below.

1. From the **Extras** menu, select the **References** element.



The **References** dialog window opens.



2. Click on the arrow of the parameter for which you want to select the reference.
   A pull-down menu with all the selection options for the reference opens.
3. Click the desired reference.
   The pull-down menu closes.
   The selected reference appears in the selection field.
4. Repeat steps 2. and 3. for all parameters whose references you would like to change.
5. To save the settings, click **ok**.
   The dialog window closes.

   NOTE:
   If you click on “**cancel**”, the settings are not saved.

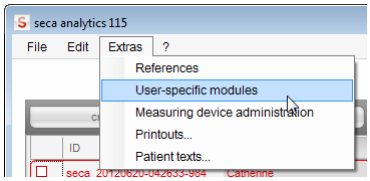
Creating user-specific modules

A number of evaluation modules have already been set up to assess your patient's state of health (see “Evaluation modules” on page 50).

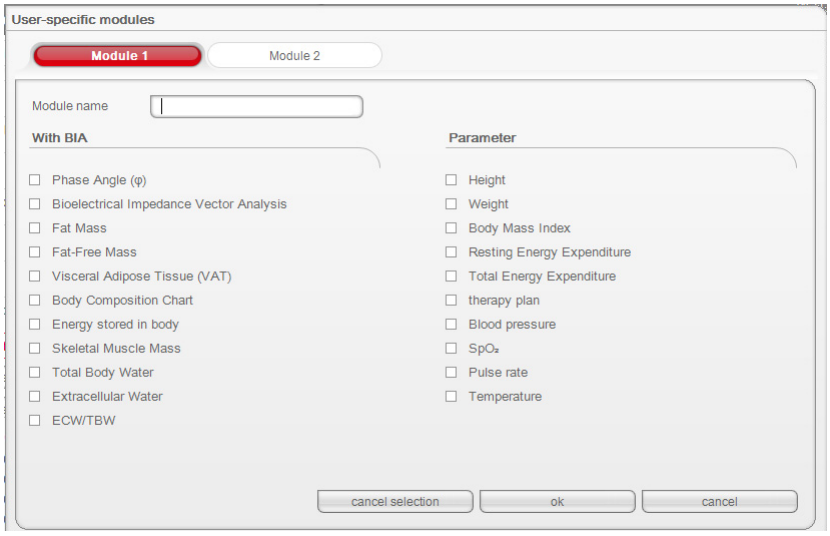
In the **User-specific modules** dialog, you can compile two further modules. You can view and evaluate these in the seca patient file under the **examination results** tab, just like the preset evaluation modules.

To compile a user-specific module, proceed as outlined below.

1. In the **Extras** menu, click on **User-specific modules**.



The **User-specific modules** dialog window appears. **Module 1** is preselected.



2. In the **Module name** field, enter the name you want to give the module.
3. Click a maximum of 4 parameters you want displayed in your module.
4. Click on **ok**.
   The user-specific module is saved.

   NOTE:
   - With **cancel selection**, you can deselect all selected items with a mouse-click.
   - With **cancel**, you can exit the dialog window without saving settings.
   - To delete a saved module, click on **cancel selection**, delete the module name in the **Module name** field and click on **ok**.
5. If desired, repeat the process for **Module 2**.

Viewing measuring device administration

You can view which scales and stadiometers are connected to your PC.

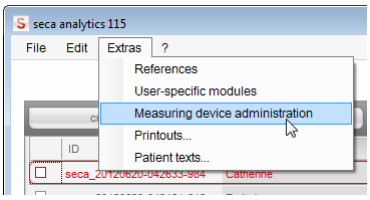
The following information is displayed for each seca measuring device connected:

- device name if entered by the administrator (recommended)
- model
- setup location if entered by the administrator (recommended)
- serial number
- connection properties:

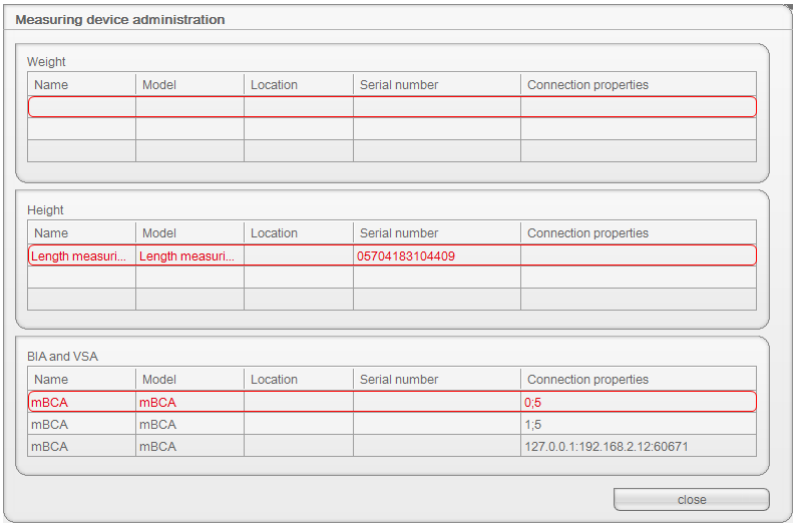
Connection	Properties
Ethernet	[IP address]:[port]
seca 360° wirelesswireless network	[PC name: channel; device type]
WiFi	[IP address]:[port]
RS232 devices	[PC name: COM port]

To have the measuring device configuration displayed, proceed as outlined below.

1. From the **Extras** menu, select the **Measuring device administration** element.



The **Measuring device administration** window appears.



NOTE:

- You cannot make any changes in this window. If changes are to be made, please contact your administrator.
- Both seca mBCAs and seca mVSAs appear in the **Model** column as “mBCA”.

2. To exit the **Measuring device administration** window, click on **close**.

Creating printouts

Working with print templates

To print out measured results, you can use the default print templates of the **seca 115** PC software or create individual print templates.

The following categories of default print template are available in the **seca 115** PC software:

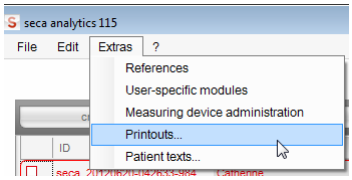
- Graphs only
- Progression graphs (history over several measurements)
- Graphs with patient text
- Tables

You can edit the print templates as follows:

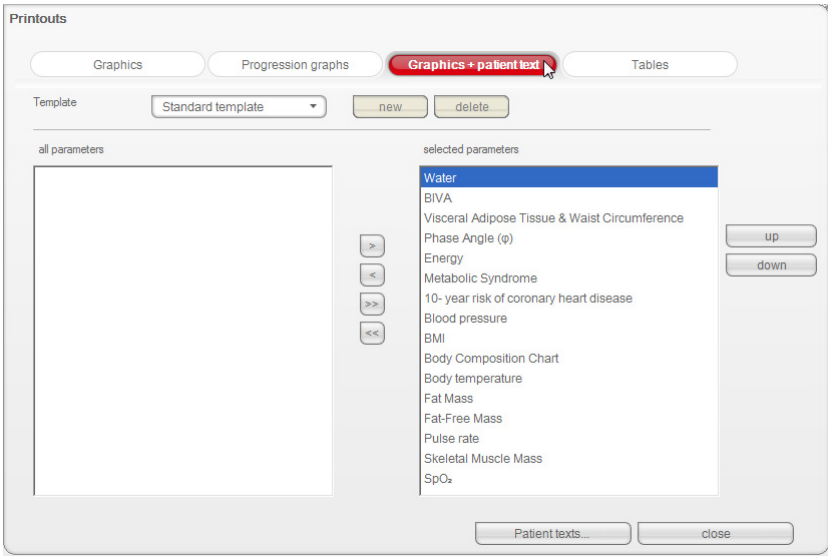
- “Creating a print template” on page 17
- “Editing the print template” on page 19
- “Deleting the print template” on page 20

Creating a print template

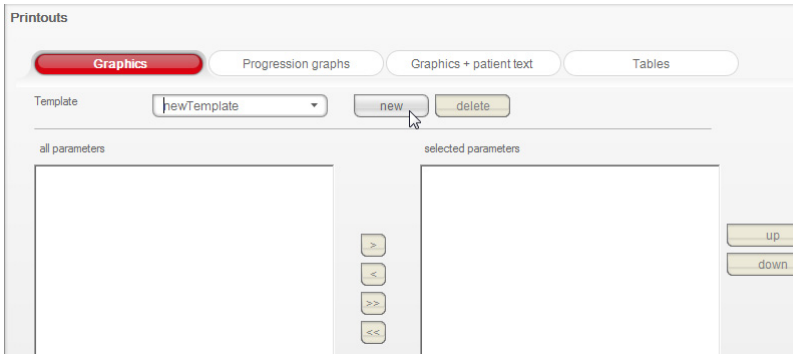
1. From the **Extras** menu, select the **Printouts...** item.



2. In the **Printouts...** dialog window, select the category for which you would like to create a new print template (in this case: **Graphics + patient text**).

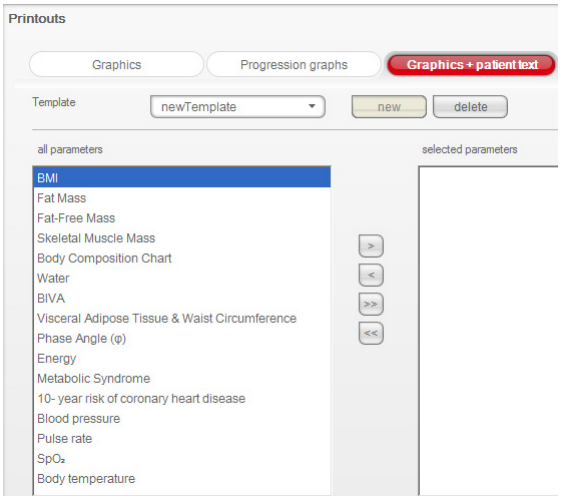


3. In the **Template** field, enter the name of a new print template.



4. Click on **new**.

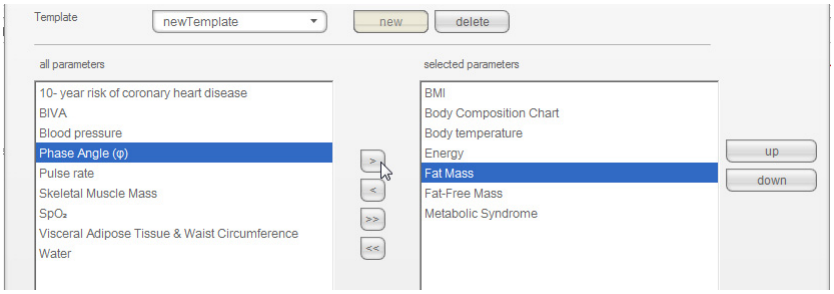
   The available parameters appear in the **all parameters** field.



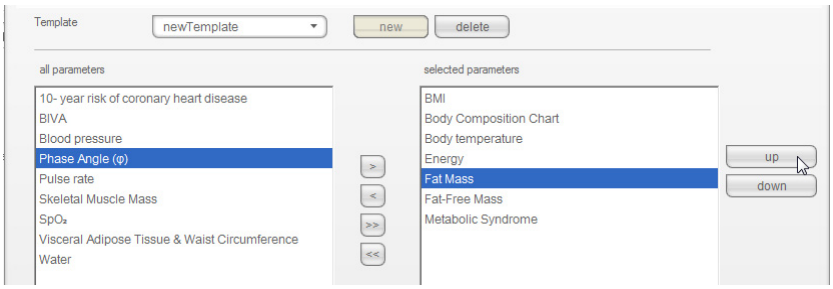
5. In the **all parameters** field, select a parameter to appear in the print template:
   a) Click on a parameter in the **all parameters** field.
   b) Click on the **>** button.
   c) Repeat steps a) and b) for all parameters you want to add to the print template.

   NOTE:
   - Use the **<** button to cancel the selection.
   - On the **tables** tab, you can use the checkbox to activate or deactivate the individual parameters for the print template.

   The selected parameters appear in the **selected parameters** field.



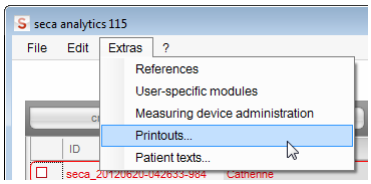
6. Specify the sequence in which the parameters are to appear on the results printout:
   a) Click on a parameter in the **selected parameters** field.
   b) Click on the **up** and **down** buttons or move the parameter to the desired position by dragging and dropping.
   c) Repeat steps a) and b) for all parameters whose position you wish to adapt.



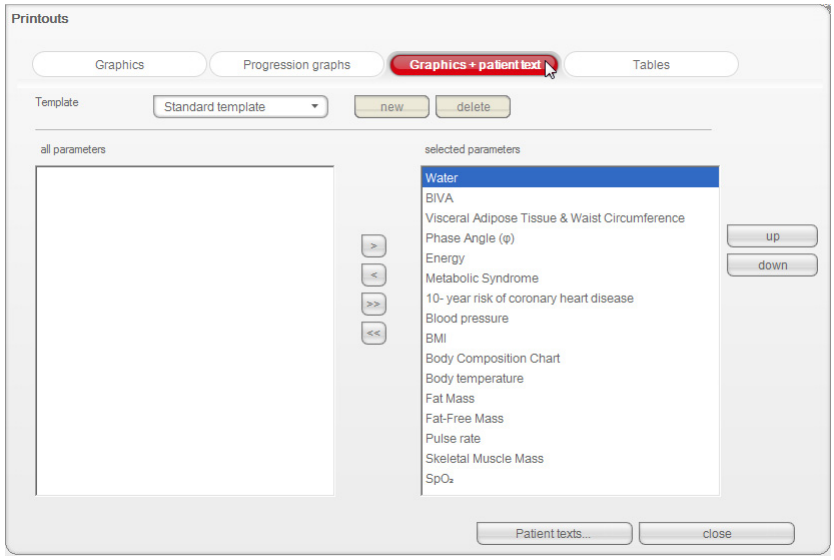
7. Click on **close**.
   The dialog window closes.
   The new print template is available in the **print** (see “Printing a seca patient file” on page 48) dialog window.

Editing the print template

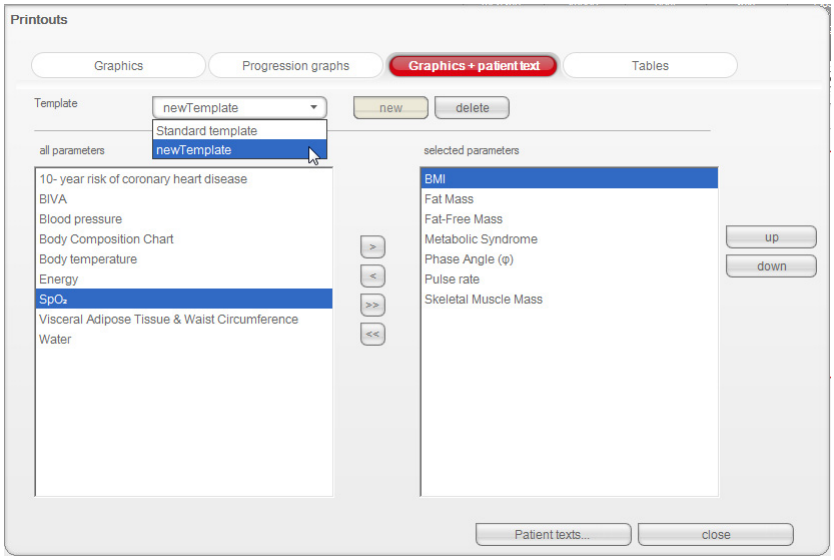
1. From the **Extras** menu, select the **Printouts...** item.



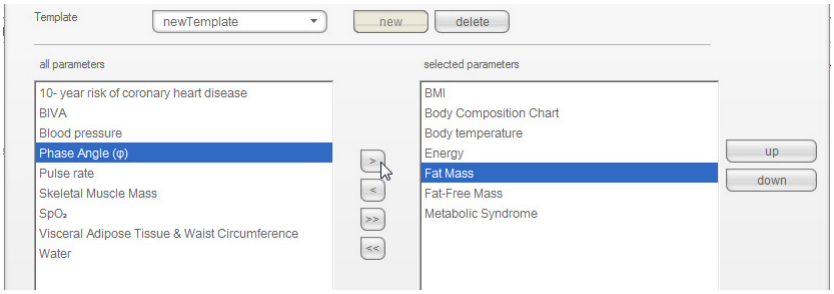
2. In the **Printouts...** dialog window, select the category for which you would like to edit a new print template (in this case: **Graphics + patient text**).



3. In the **Template** field, select a print template.
   The parameters included in this print template appear in the **selected parameters** field.

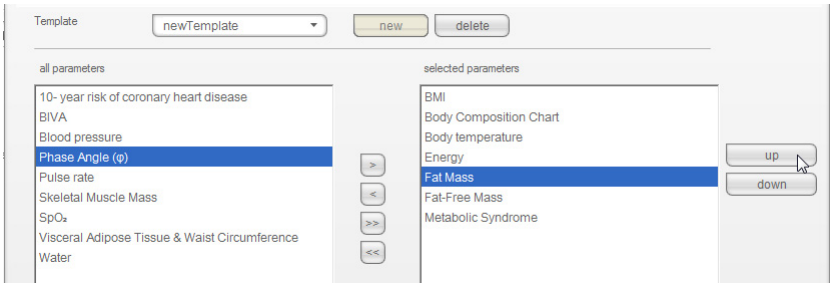


4. Edit the print template:
   a) Select a parameter in the **all parameters** or **selected parameters** field.
   b) Add parameters to the print template using the **>** button or remove them from the print template using the **<** button.
   c) Repeat steps a) and b) for all parameters to be added to or removed from the print template.



NOTE:
- On the **tables** tab, you can use the checkbox to activate or deactivate the individual parameters for the print template.
- The parameters selected for the print template appear in the Gewählte Parameter field.

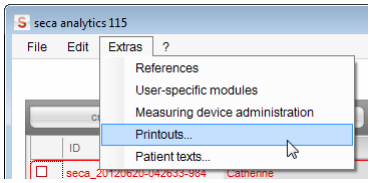
5. Edit the sequence in which the parameters are to appear on the results printout.
   a) Click on a parameter in the **selected parameters** field
   b) Click on the **up** and **down** buttons or move the parameter to the desired position by dragging and dropping.
   c) Repeat steps a) and b) for all parameters whose position you wish to adapt.



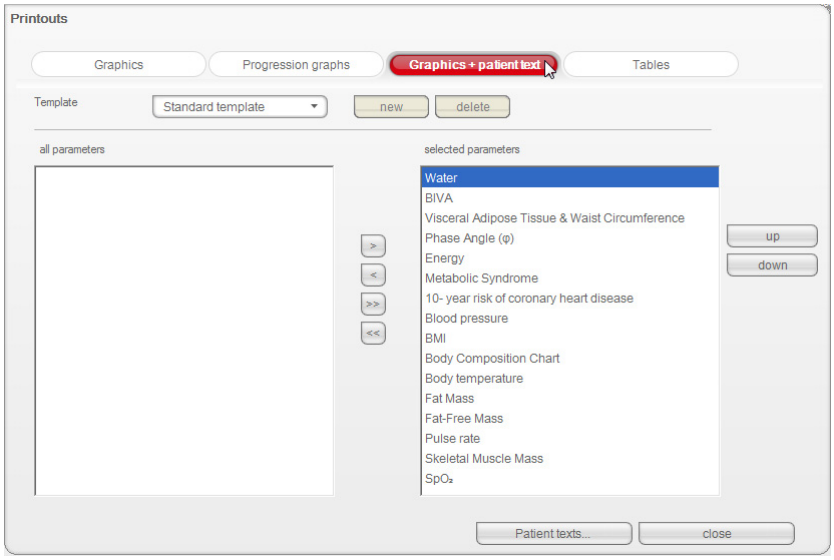
6. Click on the **close** button.
   The dialog window closes.
   The new print template is available in the **print** (see “Printing a seca patient file” on page 48) dialog window.

Deleting the print template

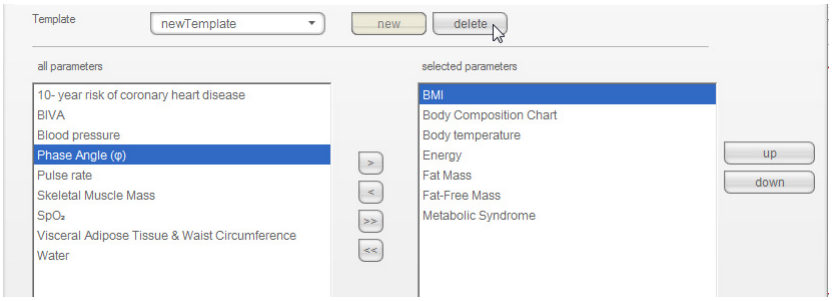
1. From the **Extras** menu, select the **Printouts...** item.



2. In the **Printouts...** dialog window, select the category in which you would like to delete a print template (in this case: **Graphics + patient text**).



3. In the **Template** field, select a print template.
   The parameters included in this print template appear in the **selected parameters** field.



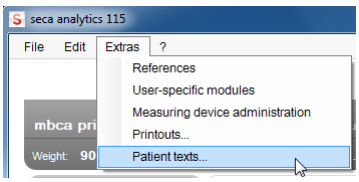
4. Click on the **delete** button.
   The print template is deleted.
5. Click on the **close** button.
   The dialog window closes.

Creating patient texts

The software provides default texts for print templates which are to contain graphs and patient text; these default texts contain information about the parameters included in the results printout. You can adapt these patient texts on an individual basis.

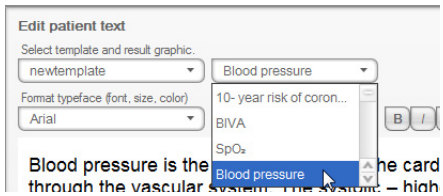
1. From the **Extras** menu, select the **Patient texts...** item.

   The **Edit patient text** dialog window appears.



NOTE:
Only print templates you have created or modified yourself from the **Graphics + patient text** category are displayed (see “Working with print templates” on page 16). System-specific print templates and print templates from other categories are not displayed.

2. Under **Select template and results graph**, select the template and results graph for which you would like to edit the patient text.



The default patient text for this results graph is displayed.

3. Edit the patient text as you are accustomed to do in industry-standard word-processing applications.

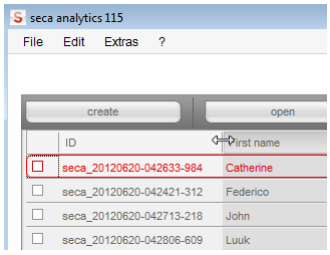
   NOTE:
   Use the **reset** button to discard your changes and restore the default patient text.

4. If desired, repeat steps 3 and 4 for other parameters.
5. Click on the **close** button.
   The dialog window closes.
   The amended patient texts are saved.

5.3 Working with the seca patient list

Adjusting column width

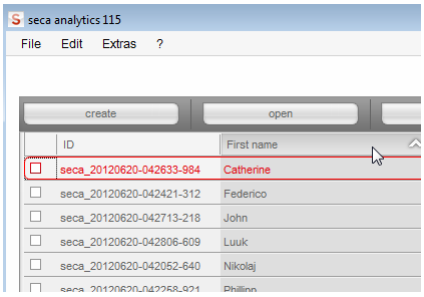
1. Position the mouse pointer in the title line on the line between two columns.



   The pointer turns into a double arrow.
2. Hold down the left mouse button and drag to make the column wider or narrower.
3. Release the left mouse button once the required column width is reached.

Sorting column content in ascending or descending order

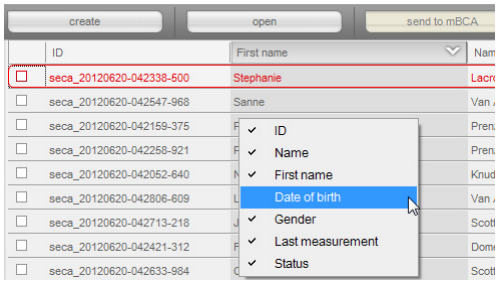
1. Click in the title line of the desired column.



   An arrow appears next to the column title, to indicate the current sorting direction.
2. Click the arrow to re-sort column content.
3. To reverse the sorting direction, click the arrow again.

Showing and hiding columns

1. Position the mouse pointer in the seca patient list.
2. Right-click.
   A context menu with the titles of all columns appears.

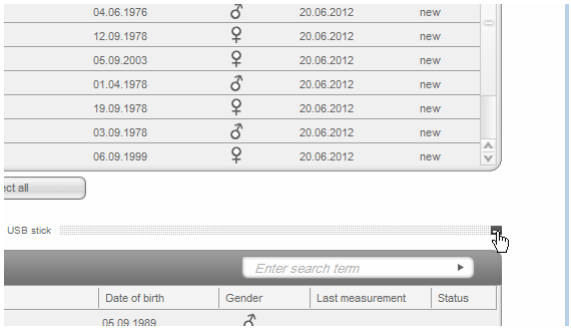


3. Click on the title of the column you want to hide.
   The checkmark in front of the column title is no longer displayed.
   The corresponding column is hidden in the seca patient list.
4. Click on the title of the column again to show it again.
   The checkmark in front of the column title is displayed again.
   The corresponding column is shown in the seca patient list again.

Showing and hiding the seca patient list from the USB memory stick

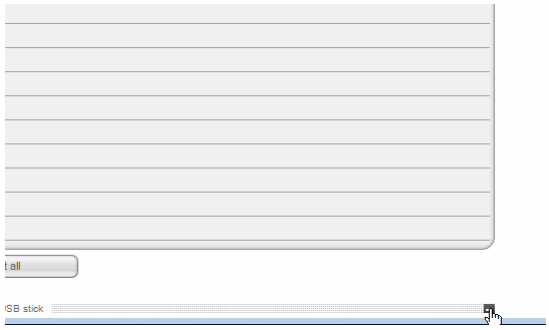
The patient list from the USB memory stick is shown each time the program starts. You can hide the patient list from the USB memory stick to obtain more space for the entries of the main patient list.

1. Click on the "**-**" symbol above the patient list from the USB memory stick.



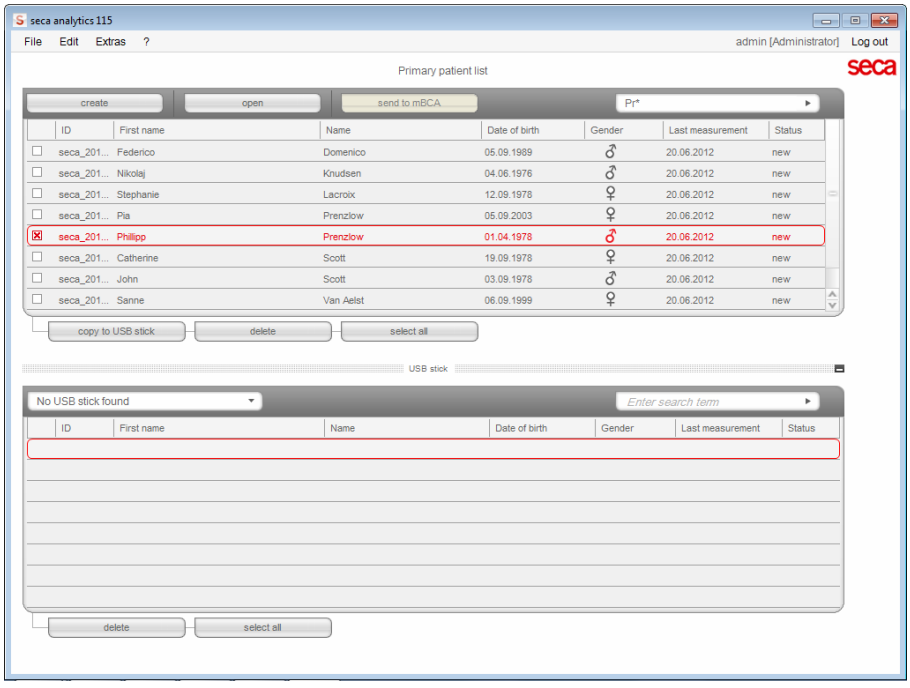
The patient list from the USB memory stick is no longer shown.

2. To show the patient list from the USB memory stick again, click on the "**-**" symbol again.



Searching for a seca patient file

1. Enter a search term in the search field.



NOTE:
If you do not know exactly how to spell a name, you can carry out a so-called "asterisk search" - e.g. "Mi*" to find "Miller".

2. Click the arrow next to the search field.
   The search process starts.
   The search results are displayed.
3. In order to return to the complete seca patient list, delete the search term in the search field.
4. Click the arrow next to the search field.
   The complete seca patient list is shown again.

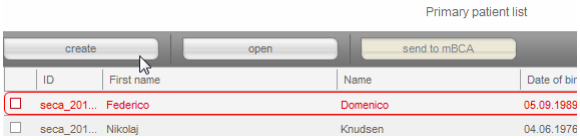
Creating a new seca patient file

If you create a new seca patient file, you must fill in at least the following fields (each marked "*" in the file):

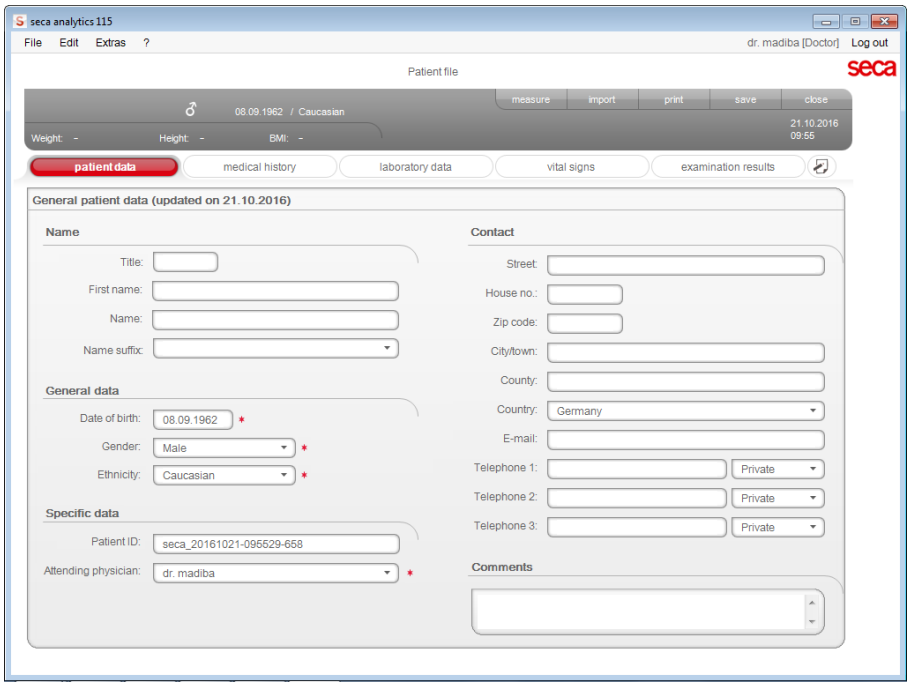
- Date of birth
- Gender
- Ethnicity
- Attending physician (if the current user is a physician, this field will be filled in automatically)

If the patient ID has to comply with a specified structure in your institution, you can enter it manually. If you do not enter a "manual" ID, then an ID will be assigned automatically when the seca patient file is saved.

1. Click on **create**.



An empty seca patient file appears.
The **patient data** tab is active.



2. Enter the patient data:

   NOTE:
   If you are logged in as a physician, you will automatically be entered in the **Attending physician** field. The field can be edited.

3. Click on **save**.
   If no manual ID was assigned, the ID created automatically by the **seca 115** software is displayed.

4. Click on **close**.
   The seca patient list is shown again.
   Additional seca patient files can be created.

Sending seca patient file to a seca mBCA (seca mBCA 515/514 only)

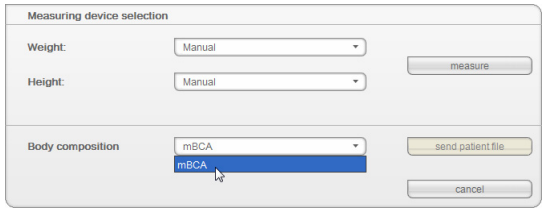
Use this function to send a seca patient file to a seca mBCA to determine a patient's body composition on that device.

This function is not required for seca mVSAs and the **seca mBCA 525**.

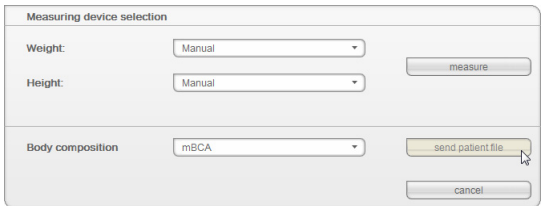
> **NOTE:**
> This function is only available if you have an Ethernet network connection available.

1. Ensure that the desired seca mBCA is switched on.
2. In the patient list of the PC software, select the desired seca patient file.
3. Click on **send to mBCA**.

The **Measuring device selection** dialog window appears.



4. In the **Measuring device selection** dialog window, select the desired seca mBCA in the **Body composition** line.
5. Click on **send patient file**.



The seca patient file is passed to the selected seca mBCA where it appears in the **patient** tab.

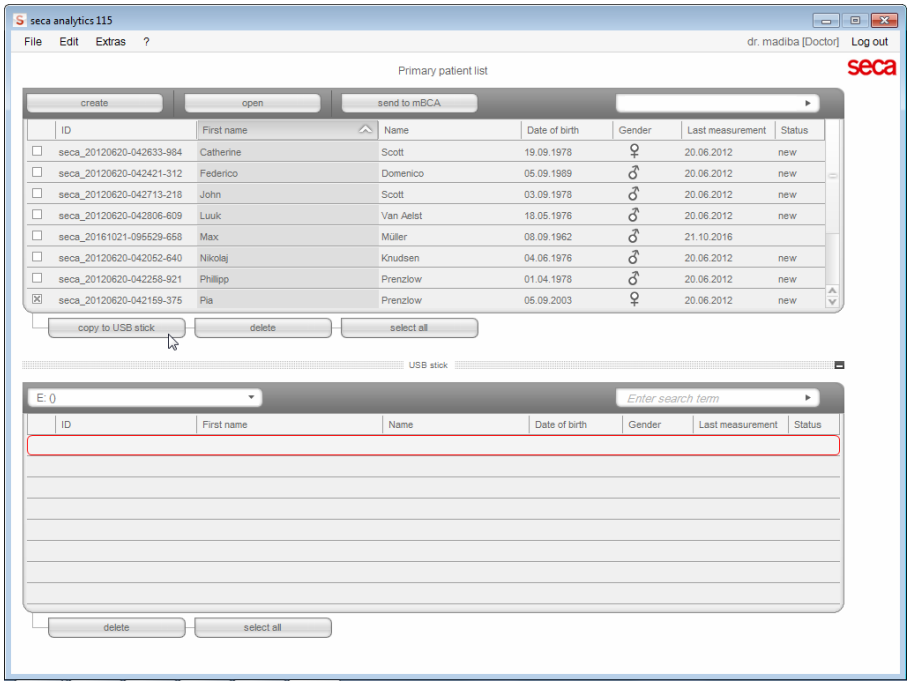
Copying seca patient files to USB memory stick (seca mBCA 515/514 only)

If you want to work with seca patient files on a seca mBCA and there is no wireless or Ethernet connection to this device, you can use an initialized USB memory stick.

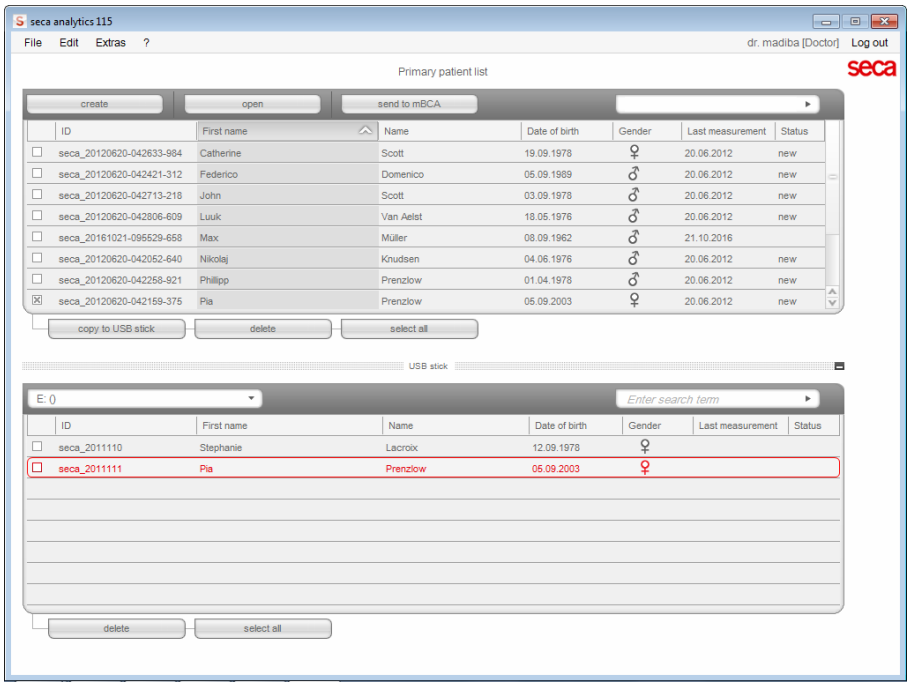
> **NOTE:**
> If you are uncertain of whether the USB memory stick has been initialized, please contact your administrator.

In order to copy data to a USB memory stick, proceed as outlined below.

1. Insert the USB memory stick in a free USB port on the PC.
   The message **USB stick detected** appears.
2. Click on **ok**.
   The dialog window closes.
3. In the main patient list, select the seca patient files you want to copy to the USB memory stick.



4. Click on **copy to USB stick**.
   The copied entries are shown in the patient list of the USB memory stick.



5. Eject the USB memory stick in accordance with the procedure of your PC's operating system.
6. Extract the USB memory stick from the USB port of the PC.

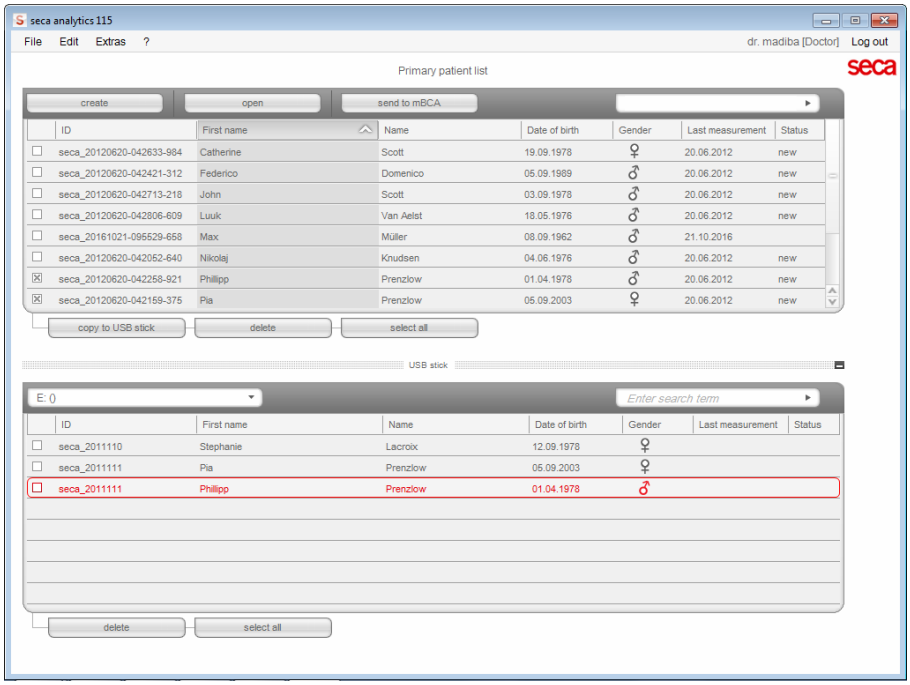
NOTE:
In order to be able to access seca patient files on a seca mBCA , you need your user PIN (generated automatically when your administrator sets up your user account for the **seca 115** PC software) or the USB PIN (generated when your administrator initializes the USB memory stick). If you do not have either of the PINs handy, contact your administrator.

Importing seca patient files from the USB memory stick (seca mBCA 515/ 514 only)

If you have created or updated seca patient files on a USB memory stick, e.g. during a measurement on a seca mBCA, you can import these data to the patient database of the **seca 115** PC software. To do so, proceed as outlined below.

NOTE:
It is not necessary to import seca patient files via USB memory stick for the **seca mBCA 525** and the **seca mVSA 535**. These devices are able to synchronize their seca patient databases automatically with those of the **seca 115** PC software.

1. Insert the USB memory stick in a free USB port on the PC.
   The message **USB stick detected** appears.
2. Click on **ok**.
   The dialog window closes.
   The patient files on the USB memory stick are shown in the patient list of the USB memory stick.



   Data import starts automatically.
   Imported entries are shown in the main patient list.

NOTE:
If you accidentally assign a patient ID which already exists in the **seca 115** PC software, the corresponding seca patient file will be copied from the USB memory stick to the patient buffer of the **seca 115** PC software. Your administrator can provide the seca patient file with a unique ID and transfer it to the main patient list.

3. Eject the USB memory stick in accordance with the procedure of your PC's operating system.
4. Extract the USB memory stick from the USB port of the PC.

Exporting seca patient files to .csv format

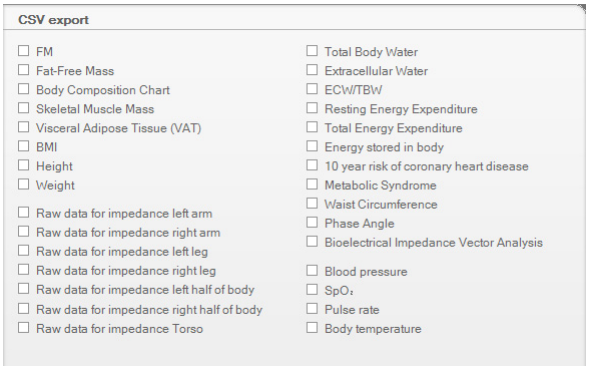
If you would like to re-use a patient's examination results outside this program, you can export them to the .csv format. This data format can be imported into common spreadsheet programs.

NOTE:
Personal data such as the name and address of the patient will not be exported.

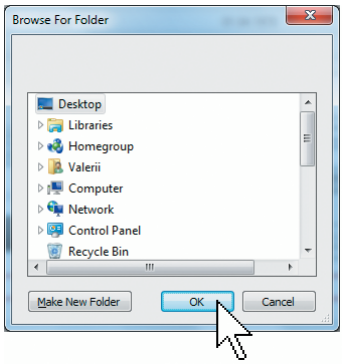
1. Position the red selection bar on the seca patient file to be exported.
2. Click the appropriate checkbox.
   A cross appears in the checkbox.
   The seca patient file is selected.
3. Repeat steps 1. and 2. for all seca patient files to be exported.

NOTE:
If you want to export all the seca patient files, use the **select all** function.

4. In the **File** menu, click on **Export**.
   The export window appears.



5. Select the parameters you want to export.
6. To confirm the settings, click **ok**.
   The **Save as** dialog window appears.



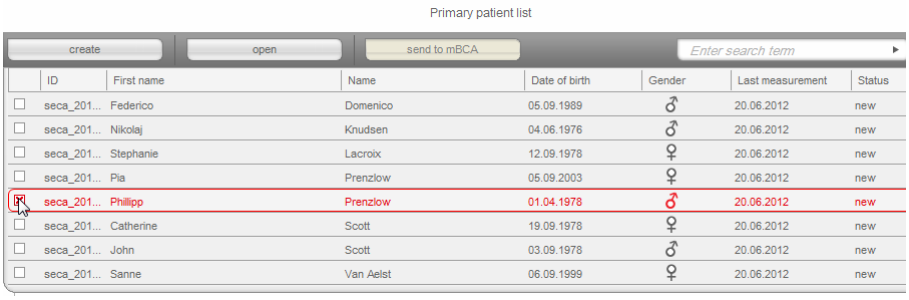
7. Select the directory to which you want to export the patient data.
8. Click on **save**.
   The data is exported.

NOTE:
If an interface to your PDMS is configured, then weight and height, as well as a PDF document with all the measured results and evaluations, will be exported to the PDMS automatically. If you are uncertain of whether an interface has been configured, please contact your administrator.

Deleting individual seca patient files

You can delete seca patient files both in the main patient list and in the patient list of the USB memory stick. To do so, proceed as outlined below.

1. Select the seca patient file to be deleted (in this case, in the main patient list).



2. Click the appropriate checkbox.
   A cross appears in the checkbox.
   The seca patient file is selected.
3. Repeat steps 1. and 2. for all seca patient files to be deleted.
4. Click on **delete**.
   The seca patient file is deleted.

ATTENTION!
Loss of data
If you delete data on the USB memory stick, you cannot restore them.

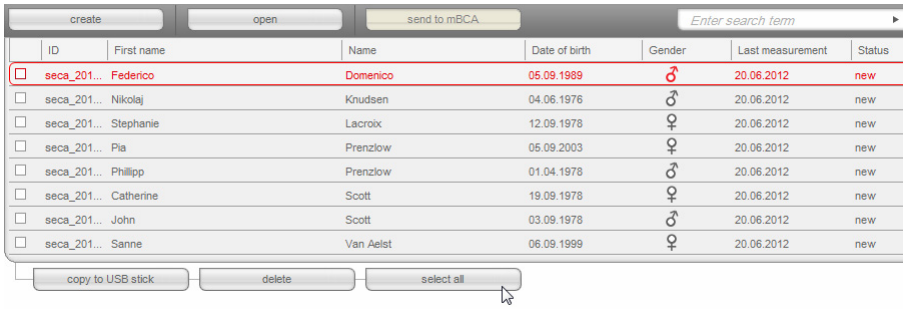
- Before deleting data on the USB memory stick, make sure that the data have been imported into the main patient list (see “Importing seca patient files from the USB memory stick (seca mBCA 515/514 only)” on page 28).

NOTE:
If you have inadvertently deleted data in the main patient list, your administrator can restore the data using the **Restore patient data** function. The entire patient data set will be restored. Entries and measurements which have not been saved will be lost.

Deleting all seca patient files

You can delete seca patient files both in the main patient list and in the patient list of the USB memory stick. To do so, proceed as outlined below.

1. Click on **select all** (in this case, in the main patient list).



NOTE:
If you want to undo the selection, click on **deselect all**.

2. Click on **delete**.
   All seca patient files are deleted.

ATTENTION!
Loss of data
If you delete data on the USB memory stick, you cannot restore them.

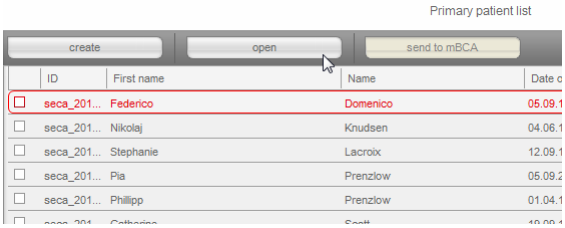
- Before deleting data on the USB memory stick, make sure that the data have been imported into the main patient list (see “Importing seca patient files from the USB memory stick (seca mBCA 515/514 only)” on page 28).

NOTE:
If you have inadvertently deleted data in the main patient list, your administrator can restore the data using the **Restore patient data** function. The entire patient data set will be restored. Entries and measurements which have not been saved will be lost.

5.4 Working with the seca patient file

Opening the seca patient file

1. Click on the checkbox of the seca patient file you want to open.
   A cross appears in the checkbox.
   The seca patient file is selected.



2. Click on **open** or double-click on the entry in the seca patient list.
   The seca patient file opens.

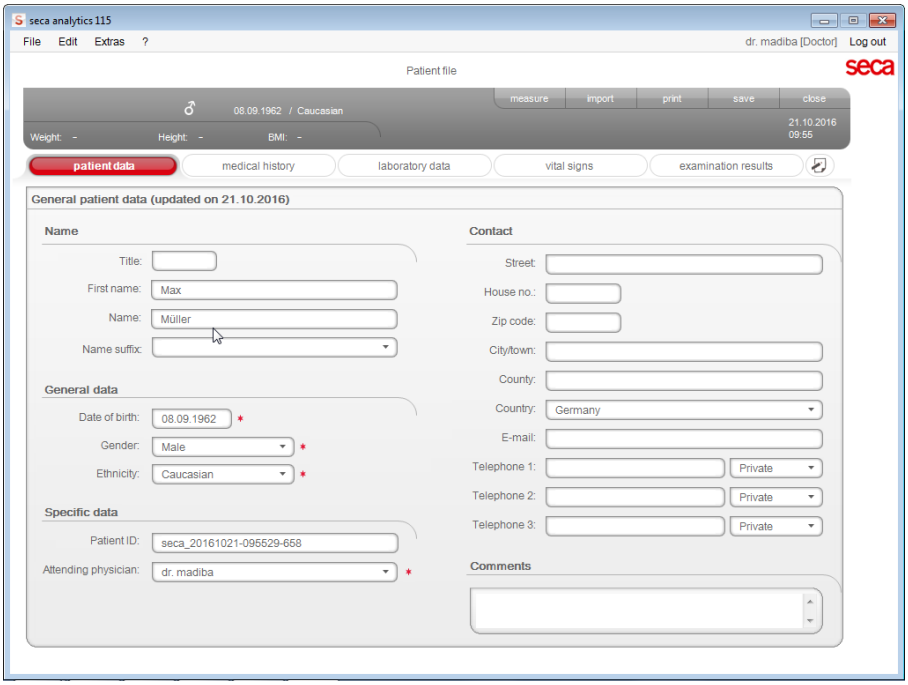
Editing patient data

When you have opened an existing seca patient file, the following fields are filled in as a minimum:

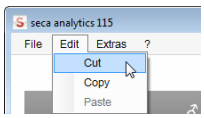
- Date of birth
- Gender
- Ethnicity
- Patient ID
- Attending physician

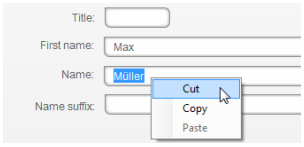
You can change and add to patient data at any time.

1. Open a seca patient file (see “Opening the seca patient file” on page 31).
   The **patient data** tab is active.
2. Select the tab on which you would like to change data.



3. Change or add to the patient data where necessary:
   - supplement data manually.
   - mark entries and use the **Cut**, **Copy** and **Paste** functions. These functions are accessible via the **Edit** menu element or by right-clicking on the context menu.



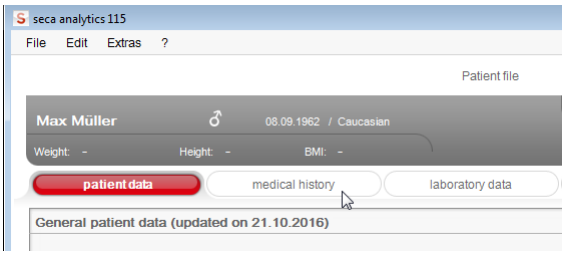


4. Click on **save**.
5. To close the seca patient file, click **close**.
   The seca patient list is shown again.

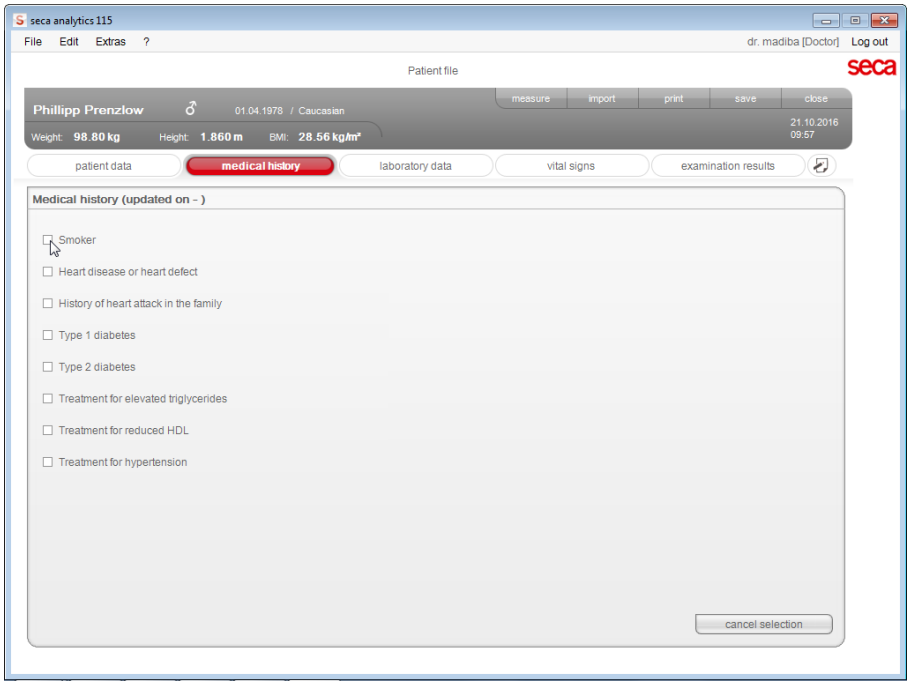
Entering a medical history

On the **medical history** tab, you can enter previous illnesses or therapies already started. This information is included in the evaluation of the measured results (see “Assessing the examination results” on page 40).

1. Click on **medical history**.
   The **medical history** tab is active.



2. Click on the checkboxes for the relevant previous illnesses and therapies.
   A cross appears in the corresponding checkboxes.



3. Click on **save**.

NOTE:
Use **cancel selection** to undo the entire selection. Then click on **save** again.

Entering laboratory data

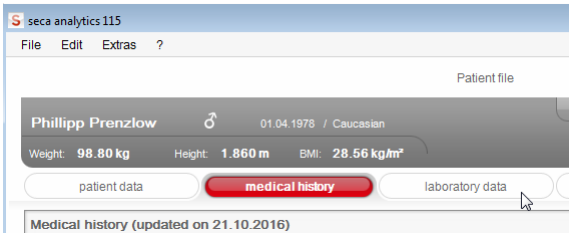
In the **laboratory data** tab, you can enter the patient's current laboratory data and waist circumference and track the history.

If an interface to your patient data management system (PDMS) has been configured for this program, patient and laboratory data can be transferred from the PDMS.

NOTE:
If you are uncertain of whether an interface has been configured, please contact your administrator.

To enter laboratory data manually, proceed as outlined below.

1. Click on **laboratory data**.
   The **laboratory data** tab is active.



2. Click in a value field.
3. Enter the value.

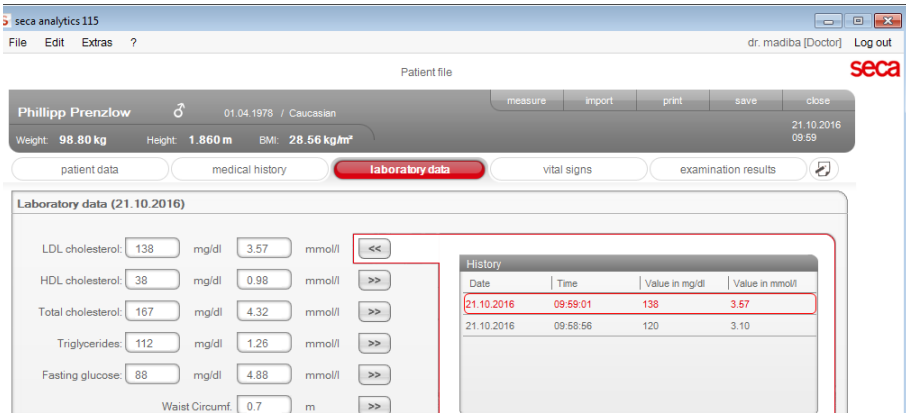
NOTE:
You can specify the value in mg/dl or in mmol/l. The conversion to the other value takes place automatically as soon as you click on the empty field.

4. Repeat steps 2. and 3. for all values you want to enter.
5. Click on **save**.

Viewing history for individual values

You can view the history for individual values. To do so, proceed as outlined below.

1. Click on the **»** symbol next to the desired value.



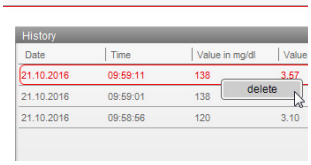
The history field for that value opens.

2. To close the history view, click **«**.
3. To return to the seca patient list, click **close**.

Deleting values in the history field

You can delete individual values in the history field. To do so, proceed as outlined below.

1. Right-click on the value you want to delete.
   The **delete** button appears.
2. Left-click on the **delete** button.
   The value is deleted
3. To return to the seca patient list, click **close**.



Entering vital signs

On the **vital signs** tab you can enter the current vital signs or view data received from a seca mVSA.

If an interface to your patient data management system (PDMS) has been configured for this program, it is possible to transmit patient and laboratory data, and vital signs from the PDMS.

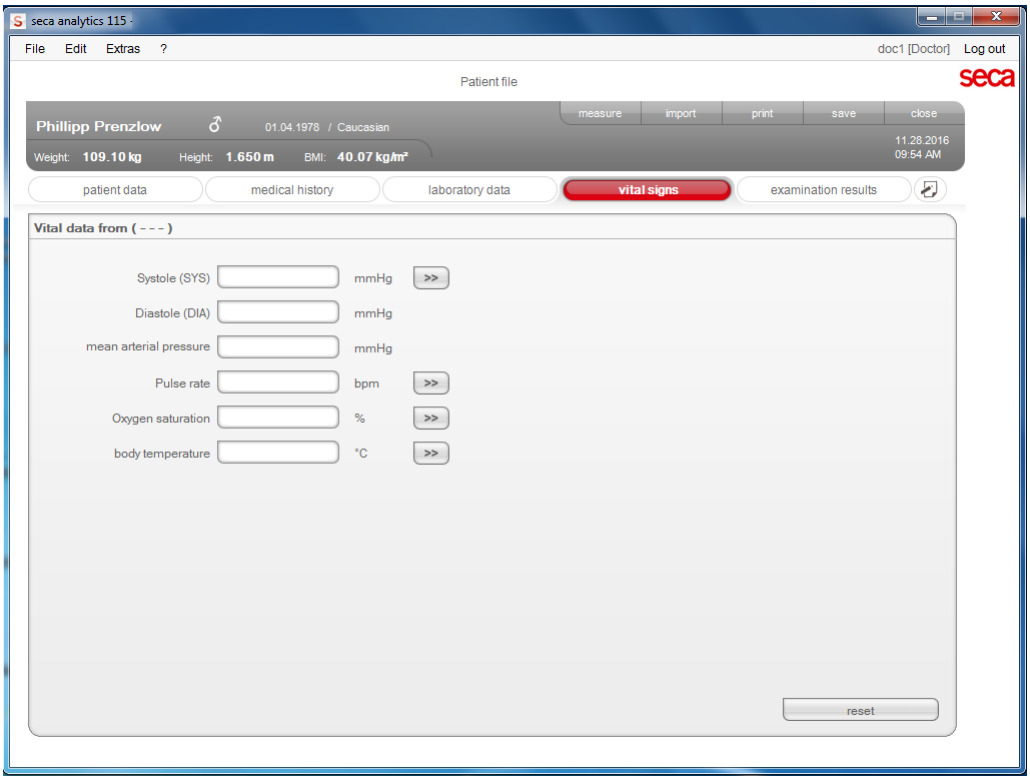
NOTE:
If you are uncertain of whether an interface has been configured, please contact your administrator.

NOTE:

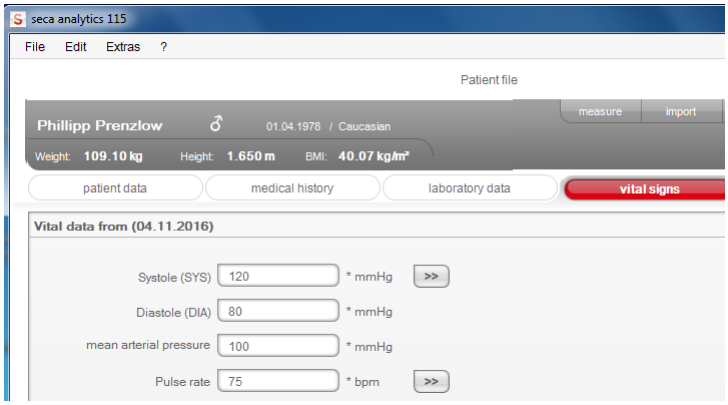
- The seca patient database of a seca mVSA is automatically synchronized with the seca patient database of the **seca 115** PC software. As soon as results from a vital signs measurement are stored on the device, they are also available in the **seca 115** PC software.
- Vital signs parameters which are not transmitted by your seca mVSA due to its features can be assigned to a vital signs measurement manually within 24 hours.
- Automatic synchronization must be set up by your administrator. If you have any questions about this, contact your administrator.

To enter vital signs manually, proceed as outlined below.

1. Click on **vital signs**.
   The **vital signs** tab is active.



2. Click in a value field.
3. Enter the value.

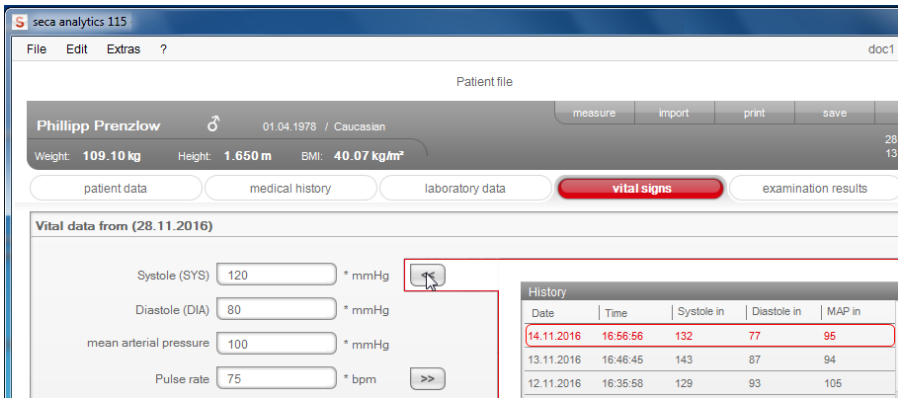


4. Repeat steps 2. and 3. for all values you want to enter.
5. Click on **save (speichern)**.
   The results can be assessed in the **examination results** tab of the **seca 115** PC software.

Viewing history for individual values

You can view the history for individual values. Proceed as outlined below.

1. Click on the **»** symbol next to the desired value.



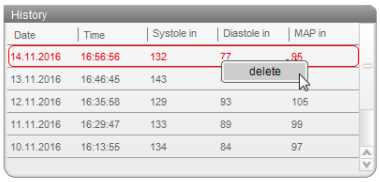
The history field for that value opens.

2. To close the history view, click **«**.
3. To return to the seca patient list, click **close**.

Deleting values in the history field

You can delete individual values in the history field. Proceed as outlined below.

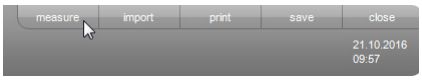
1. Right-click on the value you want to delete.
   The **delete** button appears.
2. Left-click on the **delete** button.
   The value is deleted.
3. To return to the seca patient list, click **close**.



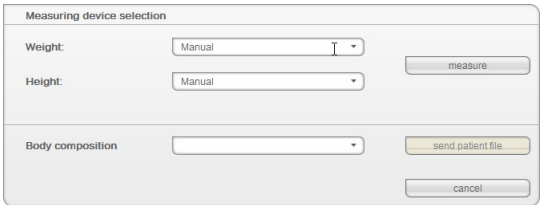
Determining weight and height

To determine a patient's weight and height, proceed as outlined below.

1. Open the seca patient file (see “Opening the seca patient file” on page 31) or create a seca patient file if necessary (see “Creating a new seca patient file” on page 25).
2. In the title bar of the seca patient file, click on **measure**.



The **Measuring device selection** dialog window appears.



3. In the **Weight** and **Height** lines, click on the devices you want to use to perform the measurement.

ATTENTION!

Incorrect measurement if incorrect device selected

If the incorrect device is selected, measured results may be assigned to an incorrect patient or no measurement may be performed at all.

- Use the name of each device to check you have selected the right devices.
- For selecting devices logged on to the same USB wireless adapter: make sure that the selected measuring devices are logged on to the same wireless group.
- If devices in the network have to be renamed or the configuration of wireless groups changed, contact your administrator.

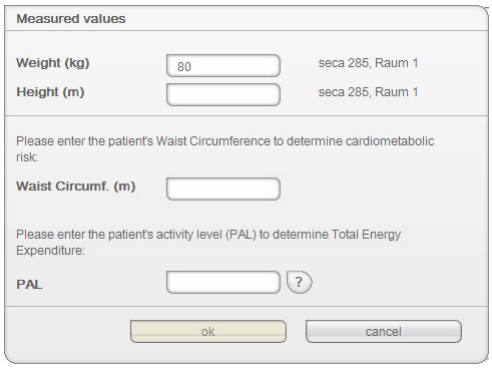
NOTE:

Select the **Manual** setting if your scales and stadiometers are not networked with the PC. In the next dialog window, you can then enter the measured values directly.

4. In the **Measuring device selection** dialog window, click on **measure**.

The **Measured values** dialog window appears.

The selected measuring devices are displayed next to the corresponding value windows.



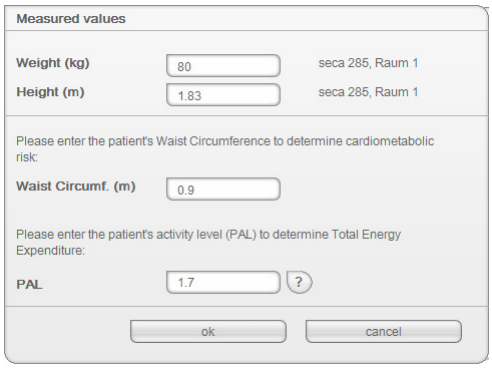
5. Perform the measurements as described in the instructions for use for the selected devices.
6. Ensure that the measured values are shown in the **Measured values** dialog window:
   - If you are using **seca 360° wireless** devices on which automatic data transmission is activated, the measured values are automatically sent to the PC.
   - If you are using **seca 360° wireless** devices on which automatic data transmission is **not** activated or is not provided, press the Enter key (**Send/print**) on the measuring devices to send the measured values to the PC.
   - If you are working with scales which are connected to the PC via RS232 interface, the measured values are transmitted to the PC automatically.
   - If your scales and stadiometers are not networked with the PC, enter the measured values manually.

NOTE:

- If you are unsure whether automatic data transmission is activated or available on your **seca 360° wireless** devices, contact your administrator.

- Regardless of the setting on the measuring devices, measured values will be displayed in the units preset for the **seca 115** PC software.

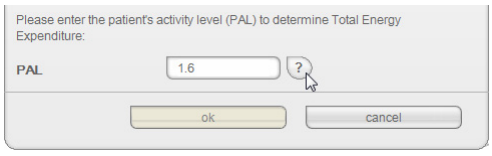
7. If you want to assess the patient's cardiometabolic risk, enter the **Waist circumference** in the **Measured values** dialog window.



8. If you want to determine the patient's total energy expenditure (TEE), enter the patient's **Physical Activity Level (PAL)** in the **Measured values** dialog window.

NOTE:

- If you do not enter waist circumference and PAL, the following modules will not be displayed in the **examination results** tab: **Cardiometabolic risk**, **Energy**.
- If waist circumference is not yet available, you have the option of entering waist circumference in the **laboratory data** tab later. This must be done the same day as the weight and height measurement (see “Entering laboratory data” on page 33).
- If you click on the **?** symbol next to the **Physical Activity Level (PAL)** line, a table of PAL values appears. If you click on a value, it will be adopted in the **Measured values** window.



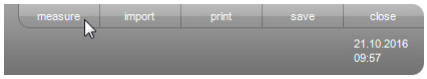
9. In the measured values window, click on **ok**.
   The measuring procedure is complete.
   The **examination results** tab is active.
   The results of the examination can be evaluated.

Determining body composition (seca mBCA 515/514)

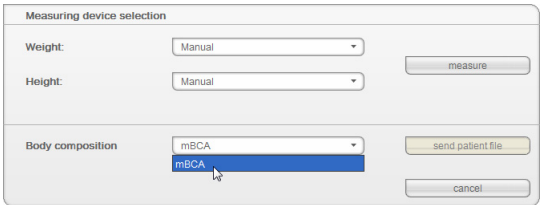
If you would like to determine a patient's body composition using a seca mBCA (bioimpedance measurement), you can send an open seca patient file to the desired seca mBCA. To do so, proceed as outlined below.

NOTE:
This function is only available if you have an Ethernet network connection available.

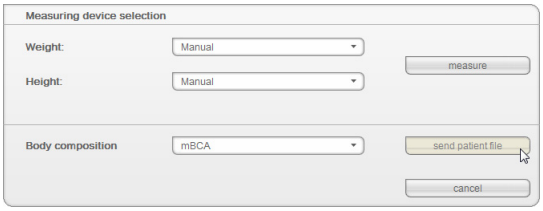
1. Ensure that the desired seca mBCA is switched on.
2. Open the seca patient file (see “Opening the seca patient file” on page 31) or create a seca patient file if necessary (see “Creating a new seca patient file” on page 25).
3. In the title bar of the seca patient file, click on **measure**.



The **Measuring device selection** dialog window appears.



4. In the **Measuring device selection** dialog window, select the desired seca mBCA in the **Body composition** line.
5. In the **Measuring device selection** dialog window, click on **send patient file**.



The seca patient file is passed to the selected seca mBCA where it appears in the **patient** tab.

6. Perform the bioimpedance measurement as described in the “Instructions for Use for Physicians and Assistants” for the seca mBCA.
7. Save the bioimpedance measurement on the seca mBCA as described in the “Instructions for Use for Physicians and Assistants” for the seca mBCA.
   The seca patient file in the **seca 115** PC software is updated automatically.
   The results can be assessed in the **examination results** tab of the **seca 115** PC software.

Determining body composition (seca mBCA 525, seca mVSA 535)

The seca patient database of the **seca mBCA 525** and the **seca mVSA 535** is automatically synchronized with the seca patient database of the **seca 115** PC software. As soon as results from a bioimpedance or vital signs measurement are stored on the aforementioned device, they are also available in the **seca 115** PC software.

Automatic synchronization must be set up by your administrator. If you have any questions about this, contact your administrator.

Assessing the examination results

On the **examination results** tab, you can view the evaluations of all measurements performed for the patient. In addition to weight and height, the evaluation also includes waist circumference and physical activity level, as well as medical history and laboratory data. If the values for a bioimpedance measurement are available, these are also taken into account. The results are displayed in evaluation modules.

NOTE:
This section describes how to use the **seca 115** PC software. For basic information about the medical content of the evaluation modules, see the section entitled “Medical basis” from page 50.

The following evaluation modules can be considered if weight, height, PAL and waist circumference are available for a patient.

- **Cardiometabolic risk**
- **Development/growth**
- **Energy**

The following evaluation modules can be considered in addition if data from a bioimpedance measurement are available:

- **Function/rehabilitation**
- **Fluid**
- **Health risk**
- **Raw data for impedance**

The following evaluation module can also be considered if data from a vital signs measurement (**seca mVSA 535** or manual) are available:

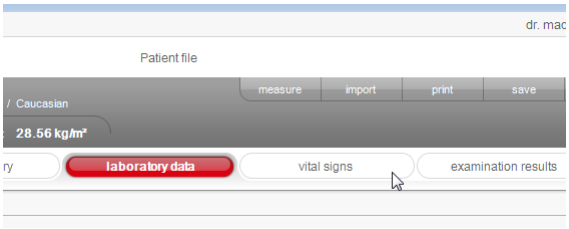
- **Vital signs**

On the **examination results** tab you can also view the results for **User-specific modules**.

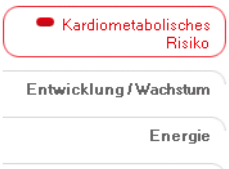
Viewing examination results

To view the evaluation modules, proceed as outlined below.

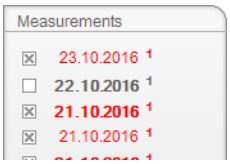
1. Click on **examination results**.
   The **examination results** tab is active.



2. Click on the module you want displayed.



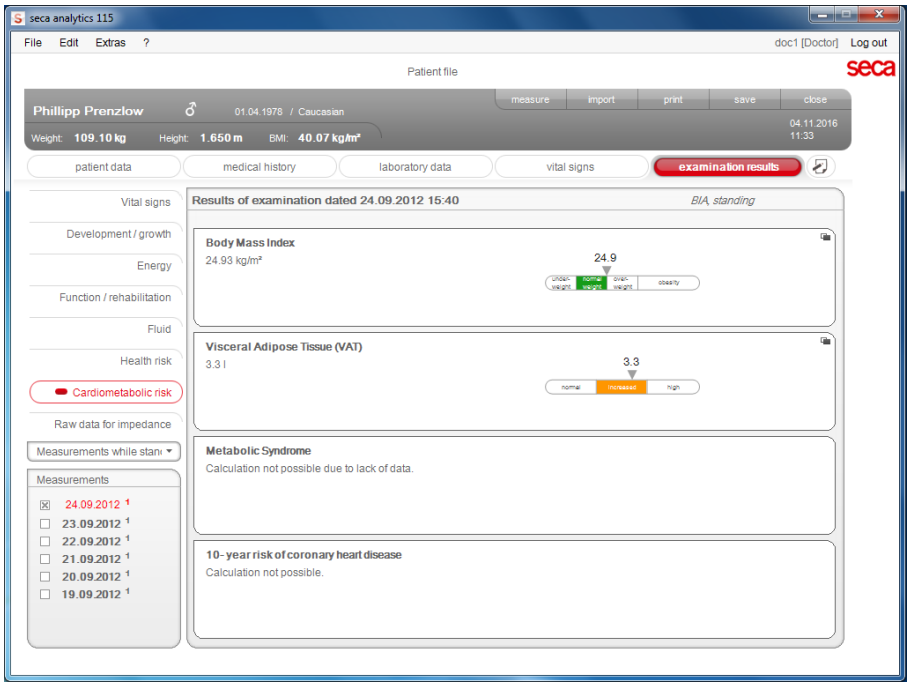
3. Click on the measurement you want displayed.



NOTE:
Measurements can be selected by either dragging or using check-boxes. If you want to change the type of selection, contact your administrator.

The evaluation of the measurement is displayed.

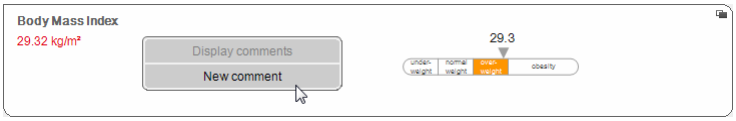
For some evaluations, a graphical display is provided.



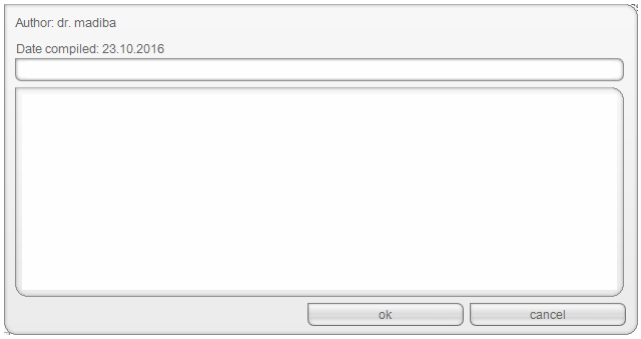
Adding a comment to an evaluation parameter

You can add a comment to every evaluation parameter shown.

1. Right-click in a results graph.
   A context menu appears.



2. Click on **New comment**.
   The comments window opens.

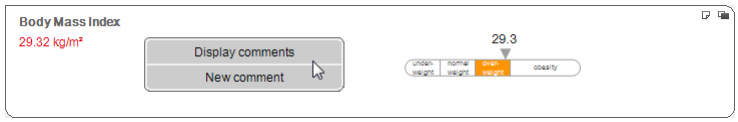


   The date and time are entered automatically.
3. Enter a **subject**.
4. Enter your comment in the comments field.
5. Click on **ok** in the comments field.
   The comments field closes.
   The comment symbol appears in the results graph.

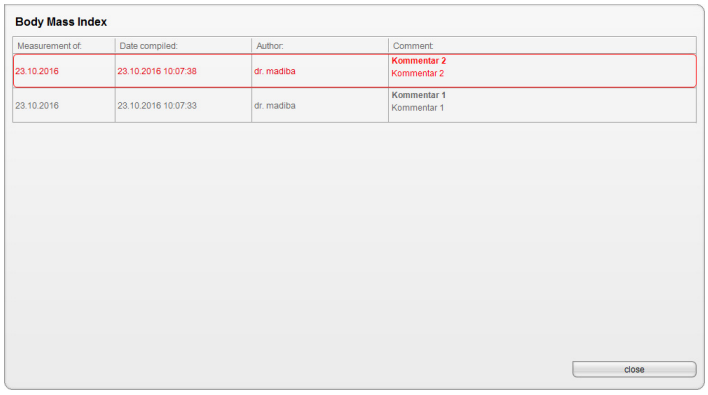
Viewing comments on an evaluation parameter

If the comment symbol is shown in the results graph of an evaluation parameter, there is at least one comment.

1. Right-click in a results graph.
   A context menu appears.



2. Click on **Display comments**.
   The comments list opens.



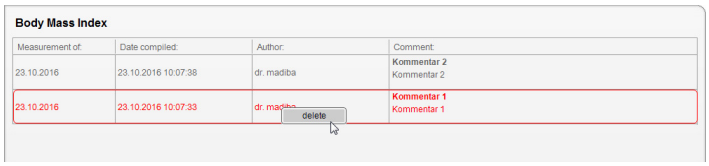
   All the comments on that evaluation parameter are displayed.

3. To exit the comments list, click on **close**.

Deleting comments on evaluation parameters

You can delete comments on the evaluation parameters.

1. Open the comments list as described in the section entitled “Viewing comments on an evaluation parameter” on page 43.
2. Right-click on the comment you want to delete.



   The **delete** button appears.

3. Click on the **delete** button.
   The measurement is deleted.

Displaying results graphs enlarged

The results graphs can be displayed enlarged if the window symbol appears in the graph .

The enlarged displays contain additional details which enable you to assess your patient's state of health better.

1. Click on a graph to have it displayed enlarged and with details (in this case, BMI).

2. Click on the graph again to shrink it back to its original size.

NOTE:
If you position the mouse pointer on a measurement point in the graph, the associated measured values will be displayed.

Viewing the history

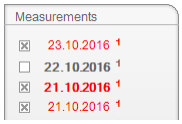
You can view a patient's history by selecting several measurements. Measured results and evaluations are then displayed in progression graphs.

NOTE:
Measurements can be selected by either dragging or using check-boxes. If you want to change the type of selection, contact your administrator.

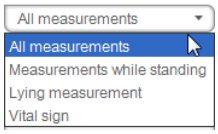
NOTE:
This function is not available in the **Cardiometabolic risk** and **Raw data for impedance** modules, as in these modules, a progression display is not relevant for assessing a patient's state of health.

Proceed as outlined below to select measurements for the history.

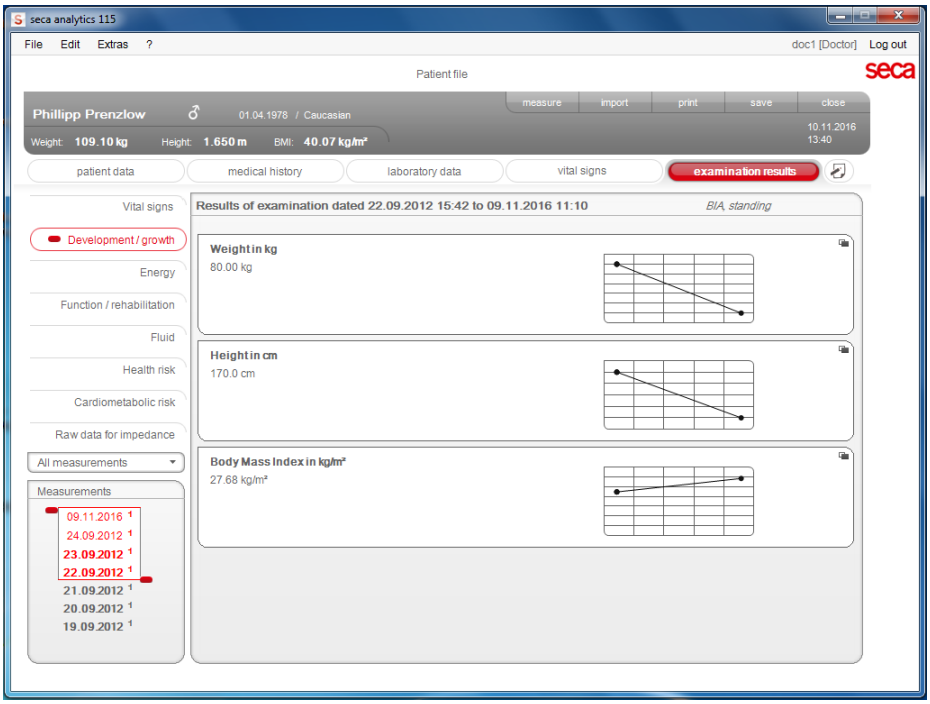
1. Click on the **examination results** tab.
2. Click on the module you want displayed (in this case: View with selection bar).
   The module is displayed in a selection bar.



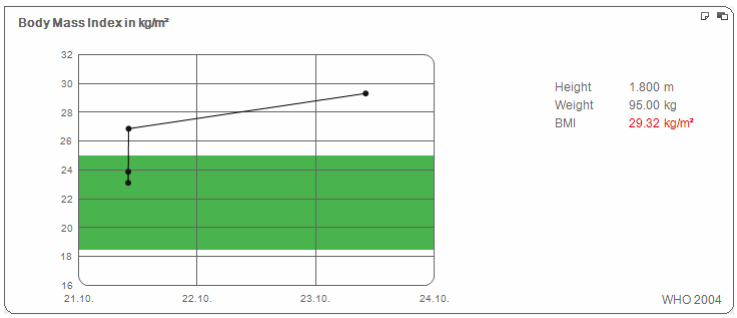
3. Filter by desired measuring method.



4. Click on a measurement you wish to select.
   The measurement is displayed on a selection bar.
5. While holding down the left mouse button, drag the selection bar across all the other measurements you want to view as a history (in this case, left handle upwards).
   The individual parameters of the module will be displayed as progression graphs.



6. Click on a graph to have it displayed enlarged and with details (in this case, BMI).



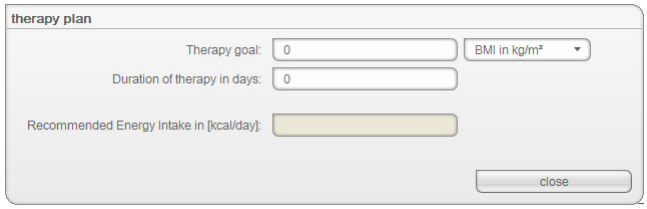
7. Click on the graph again to shrink it back to its original size.

Using the therapy planner (Energy module only)

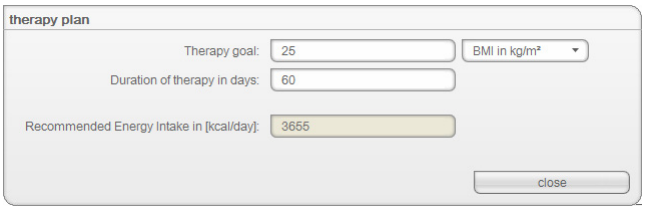
If the patient's resting energy expenditure and total energy expenditure are known, you can calculate the recommended daily energy intake for the patient in order to achieve a target weight within a defined time (duration of therapy).

The **seca 115** PC software can calculate resting energy expenditure (REE) if the following parameters are entered or have been measured: age, gender, weight and height. Total energy expenditure (TEE) can be calculated if the physical activity level (PAL) has also been entered.

1. In the **Energy** module, click on **Therapy planner**.



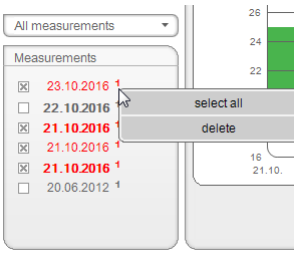
2. Enter the value and type of the therapy objective.
3. Enter the therapy duration in days.
   The recommended daily energy intake is calculated.



4. To save settings in the **Therapy planner**, click on **close**.

Deleting measurements

You can delete individual measurements. To do so, proceed as outlined below.

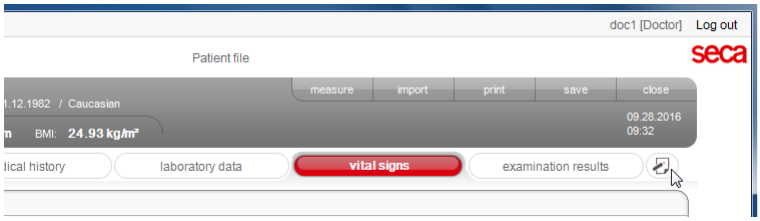


1. Right-click on the measurement you want to delete.
   The **delete** button appears.
2. Left-click on the **delete** button.
   The measurement is deleted.

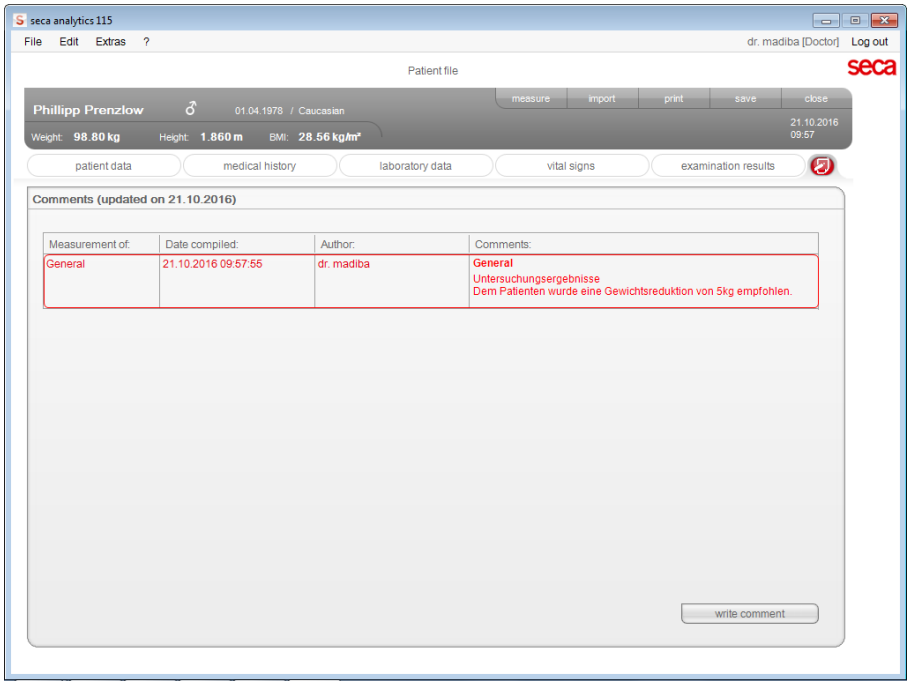
Writing comments

On the **comments** tab, you can add comments to the seca patient file.

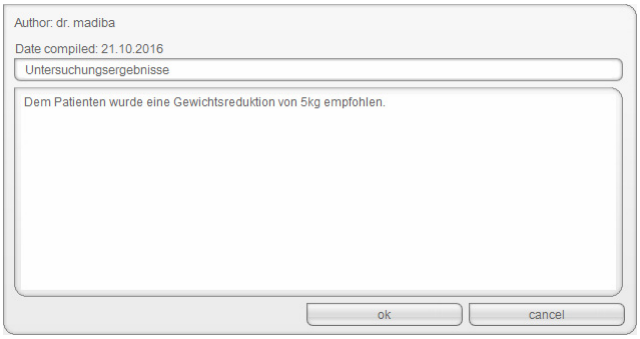
1. Click on the symbol.



The **comments** tab is active.



2. Click on **Write comments**.
   The comments window opens.



   The date and time are entered automatically.

   NOTE:
   Comments can be neither deleted nor subsequently edited in the **comments** tab.

3. Enter a **subject**.
4. Enter your comment in the comments field.
5. Click on **ok** in the comments field.
   The comments field closes.
   The comment appears as the top entry in the comments list.

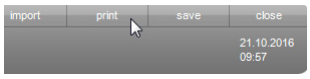
5.5 Managing a seca patient file

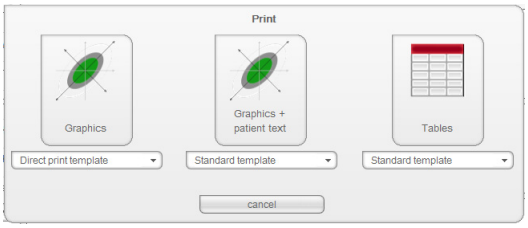
Printing a seca patient file

In the **print** dialog, you can save all the results of a measurement in the form of a PDF file. You can print out the PDF file using a PDF viewer such as Adobe Reader.

NOTE:
If you do not have a PDF viewer installed on your computer, contact your administrator.

1. Open the seca patient file.
2. In the seca patient file, click on **print**.





The **print** dialog window appears.

3. Select the print template.
4. Specify the scope of the printout:

- **Graphics**: results graphs for all parameters without further explanations
- **with patient text**: results graphs for all parameters with explanations for the patient
- **as a table**: all parameters in tabular form
- **Progression graphs**: results graphs for all parameters in time order.

NOTE:
A description of how to create your own patient text can be found in the section entitled “Creating patient texts” on page 21.

NOTE:
A description of how to create your own print template can be found in the section entitled “Creating printouts” on page 16.

The printout is printed.

5. Use the print dialog of the PDF viewer to print out the PDF file.

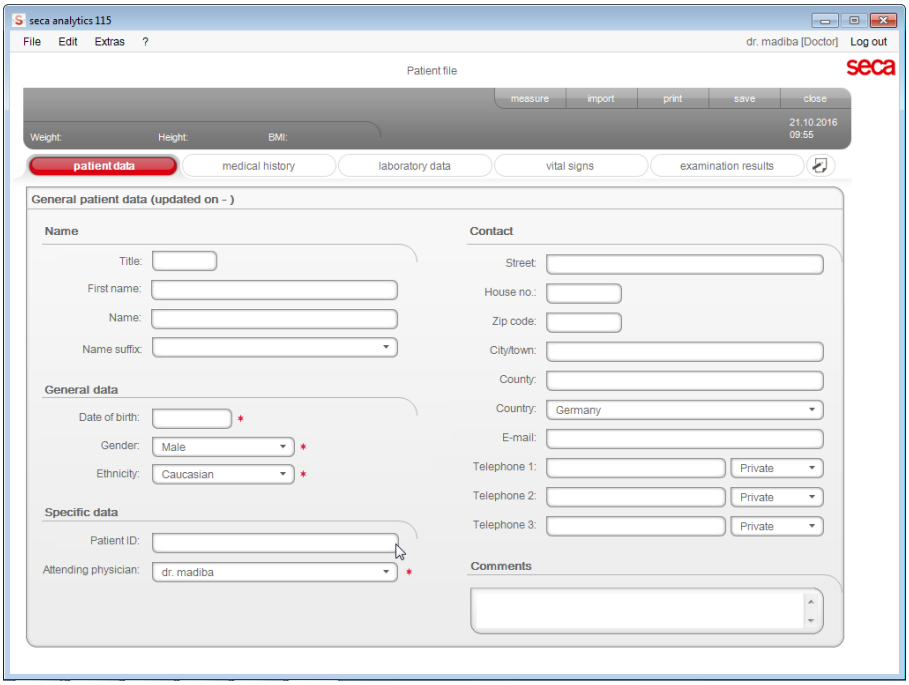
Importing a patient file

If an interface to your patient data management system (PDMS) has been configured for the **seca 115** PC software, you can import patient files from the PDMS.

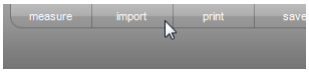
The import will work differently depending on the configuration of the interface. As an example, the import may run as described in this section.

NOTE:
If you are uncertain of whether an interface has been configured and how the import works on your system, please contact your administrator.

1. In the seca patient list, click on **create**.
   An empty seca patient file appears.
   The **patient data** tab is active.



2. In the **Patient ID** field, enter the ID under which the patient file is managed in your PDMS.



3. Click on **import**.
   The patient data are imported.

6. MEDICAL BASIS

This section briefly describes the content of the preset evaluation modules in this **seca 115** PC software, together with their medical objectives. The references on which the evaluations are based will also be introduced.

For additional information, we refer you to the appropriate professional literature.

6.1 Evaluation modules

The evaluation modules described below are preset in this **seca 115** PC software and will assist you in assessing your patients' state of health.

For information about how to access the evaluation modules and navigate within them, see “Assessing the examination results” from page 40.

The following evaluation modules can be considered if weight, height, PAL and waist circumference are available for a patient.

- **Cardiometabolic risk**
- **Development/growth**
- **Energy**

The following evaluation modules can be considered in addition if data from a bioimpedance analysis are available for the patient:

- **Function/rehabilitation**
- **Fluid**
- **Health risk**
- **Raw data for impedance**

The following evaluation modules can also be considered if data from a vital signs measurement (**seca mVSA 535** or manual) are available:

- **Vital signs**

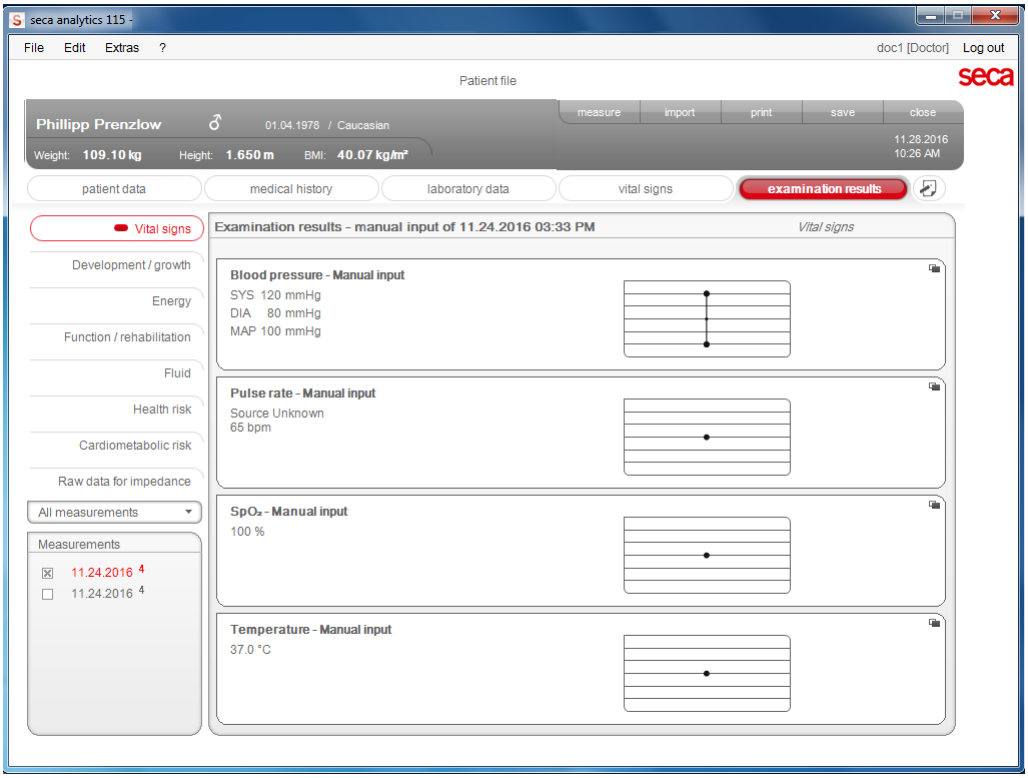
Vital signs (seca mVSA 535 only)

This module shows the vital signs determined with a **seca mVSA 535**.

> **NOTE:**
> Individual parameters may not appear depending on the device variant.

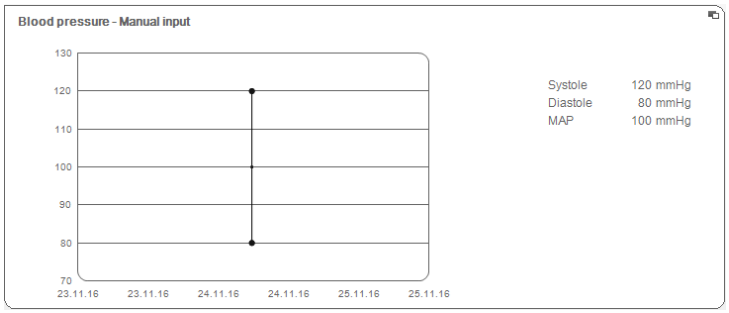
No weight, height, PAL, waist circumference or bioimpedance analysis are required for this module. The following parameters are displayed:

- Blood Pressure
- Pulse Rate
- SpO_2 (oxygen saturation)
- Body Temperature

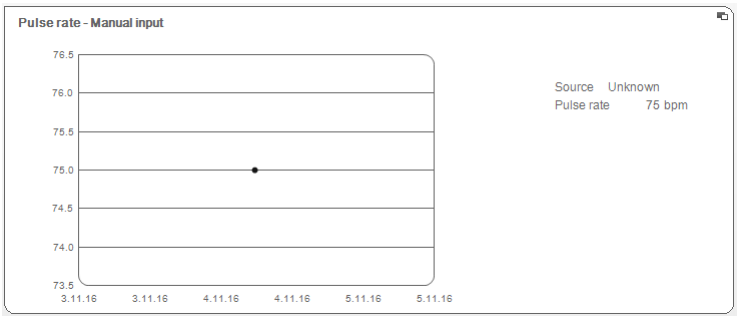


Detail views are available for the following parameters:

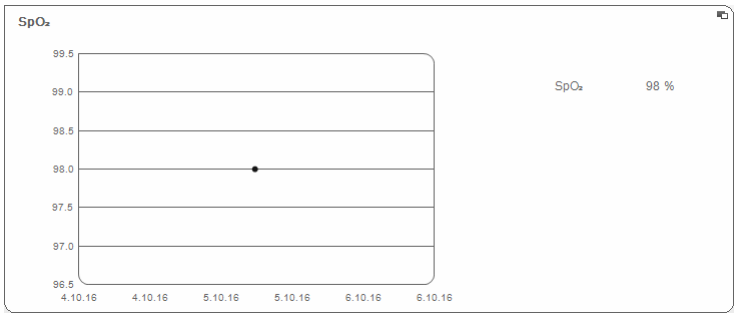
Detail view, Blood Pressure



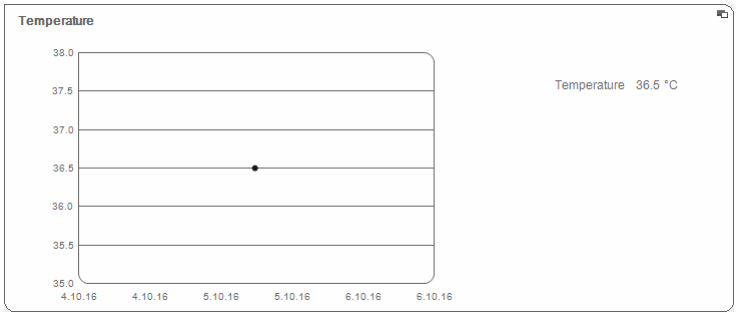
Detail view, Pulse Rate



Detail view, SpO_2 (oxygen saturation)



Detail view, Body Temperature



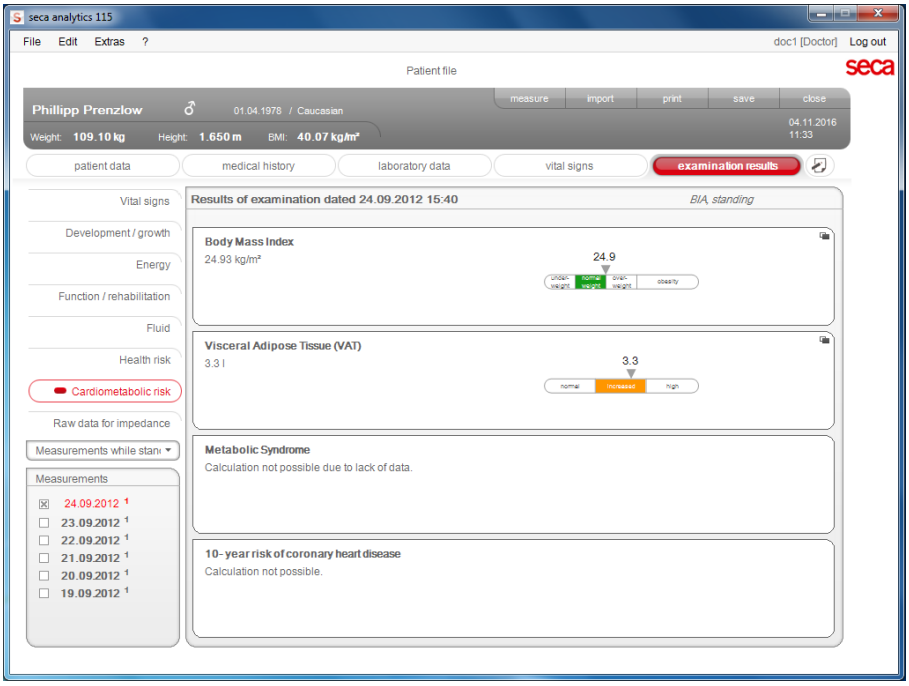
Cardiometabolic risk

This module indicates whether metabolic syndrome is present and the level of the 10-year risk for coronary heart disease.

NOTE:
The **Cardiometabolic risk** module is only available if a seca patient file has been created for a patient and the laboratory data and waist circumference have been entered no later than the day weight and height were measured (see “Entering laboratory data” on page 33).

No bioimpedance analysis is required for this module. The following parameters are displayed:

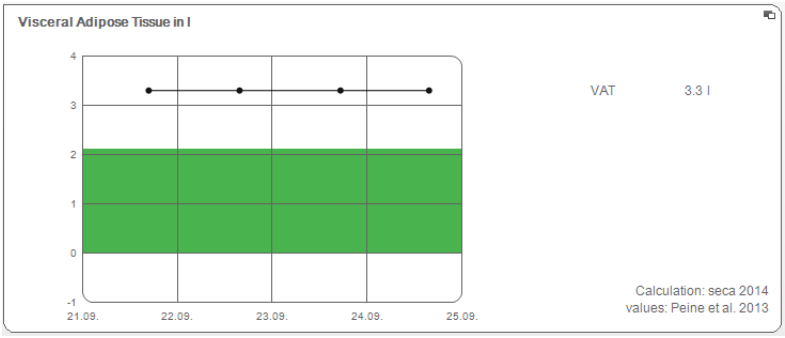
- Body Mass Index (BMI)
- Visceral Adipose Tissue (VAT)
- Metabolic Syndrome (MSX)
- 10- year Risk of Coronary Heart Disease



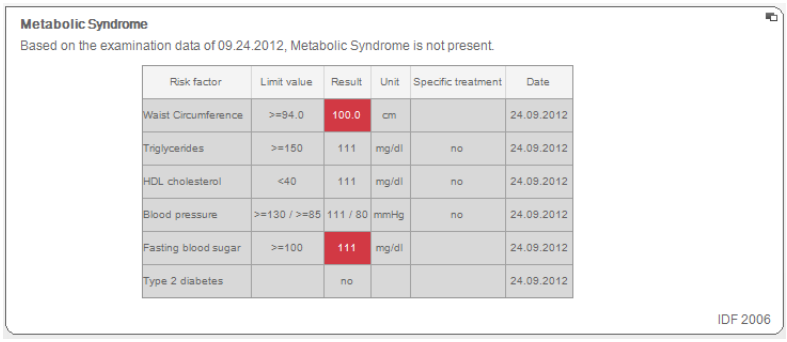
Detail views are available for the following parameters:

Detail view, body mass index

Detail view, visceral adipose tissue (VAT)

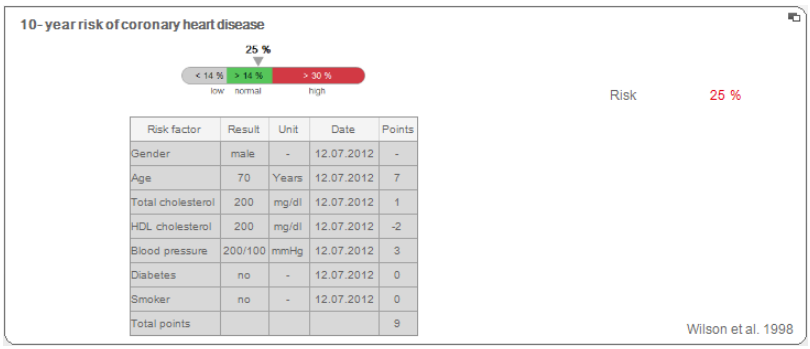


Detail view, metabolic syndrome



Risk factor	Limit value	Result	Unit	Specific treatment	Date
Waist Circumference	>=94.0	100.0	cm		24.09.2012
Triglycerides	>=150	111	mg/dl	no	24.09.2012
HDL cholesterol	<40	111	mg/dl	no	24.09.2012
Blood pressure	>=130 / >=85	111 / 80	mmHg	no	24.09.2012
Fasting blood sugar	>=100	111	mg/dl		24.09.2012
Type 2 diabetes		no			24.09.2012

Detail view, 10-year risk of coronary heart disease for the age group 30-74 years



Risk factor	Result	Unit	Date	Points
Gender	male	-	12.07.2012	-
Age	70	Years	12.07.2012	7
Total cholesterol	200	mg/dl	12.07.2012	1
HDL cholesterol	200	mg/dl	12.07.2012	-2
Blood pressure	200/100	mmHg	12.07.2012	3
Diabetes	no	-	12.07.2012	0
Smoker	no	-	12.07.2012	0
Total points				9

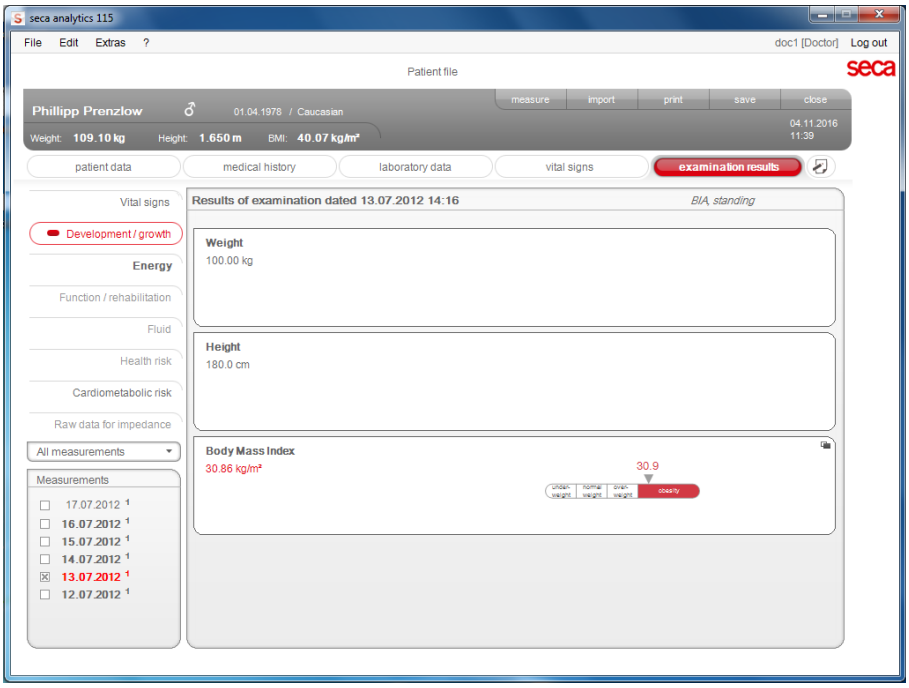
Development/growth

This module indicates both the weight and height of a person and automatically calculates the BMI. This allows weight changes to be monitored in both children and adults.

In children, this module assists with regular checks to assess growth and development.

No bioimpedance analysis is required for this module. The following parameters are displayed:

- Weight
- Height
- Body Mass Index (BMI)



A detail view is available for the BMI:

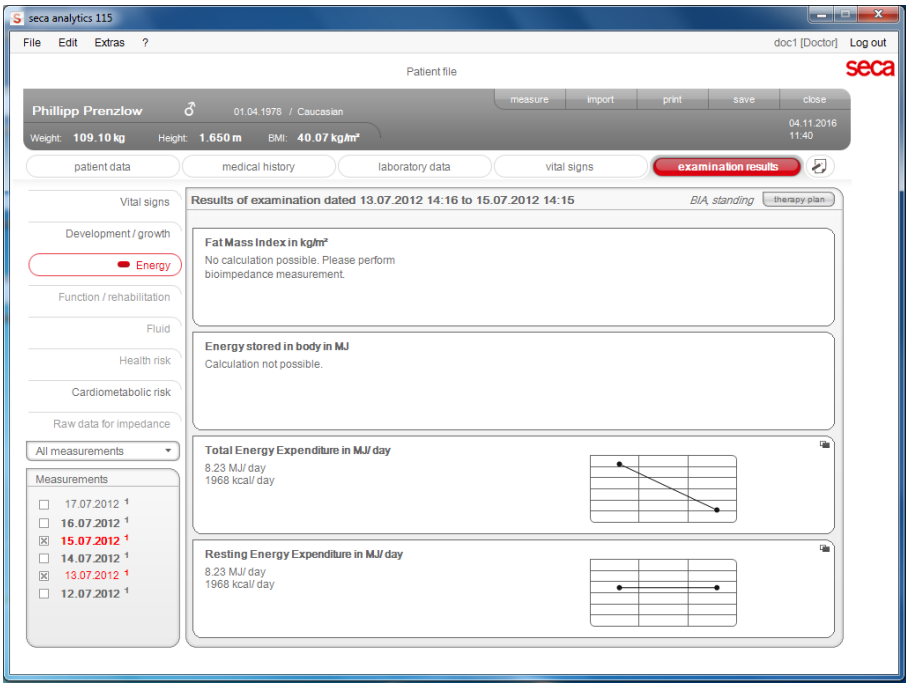
Energy

The aim of this module is to determine a person's energy expenditure and energy reserves. The following parameters are displayed:

- Fat Mass (FM)
- Energy stored in body (E_{body})
- Total Energy Expenditure (TEE)
- Resting Energy Expenditure (REE)

The parameter resting energy expenditure (REE) is available without bio-impedance analysis. REE is determined with the aid of the parameters height and weight, and with the aid of automatic BMI calculation.

For all other parameters in this module, a bioimpedance analysis is required in addition to height and weight.



A detail view and a therapy planner are available for this module:

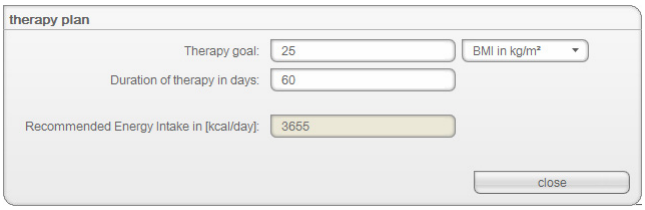
Fat Mass

Therapy tool

The **Energy** module serves as a basis for dietary advice. The therapy planner of the module assists you in this. You can use the therapy planner to specify the following values:

- treatment objective: weight or BMI
- duration of treatment in days

From these values, the planner calculates recommended daily energy intake.



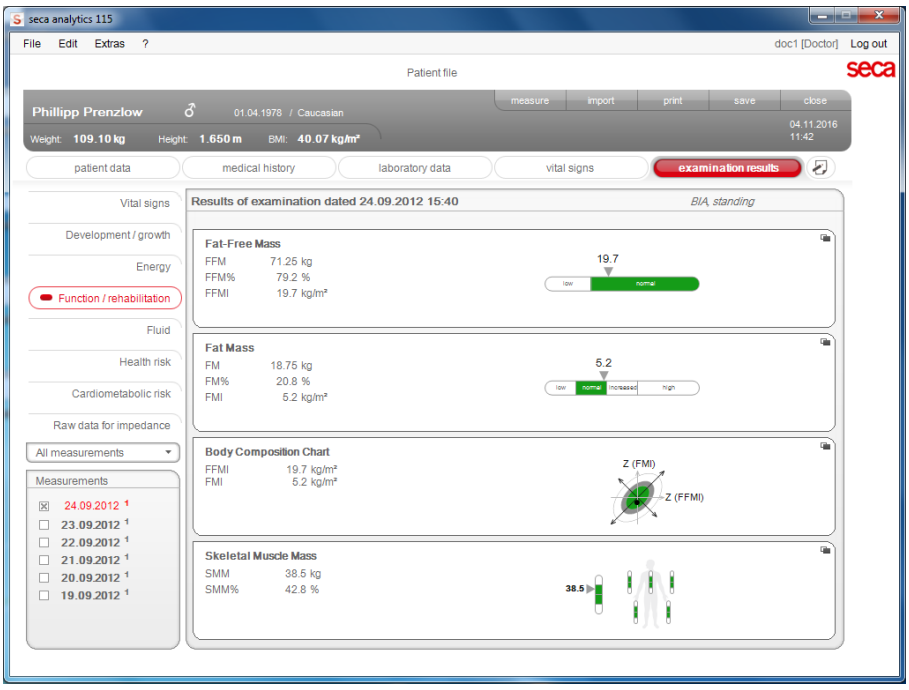
No detail views are available in this module.

Function/rehabilitation

This module is for determining a person's level of fitness. This allows the success of a training regime to be assessed.

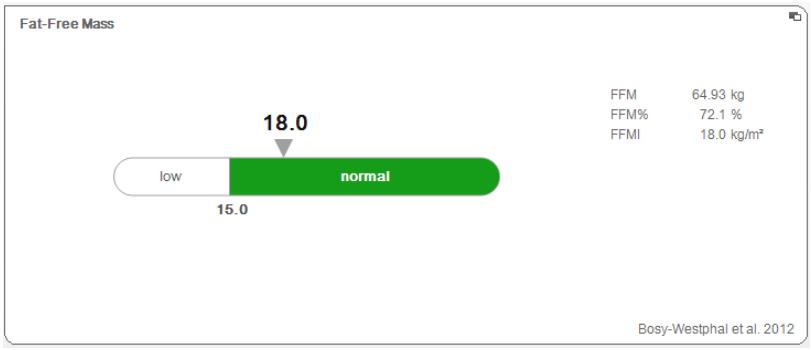
The parameters height and weight, as well as a bioimpedance analysis, are required for this module. The following parameters are displayed:

- Fat-Free Mass (FFM)
- Fat Mass (FM)
- Body Composition Chart (BCC)
- Skeletal Muscle Mass (SMM)



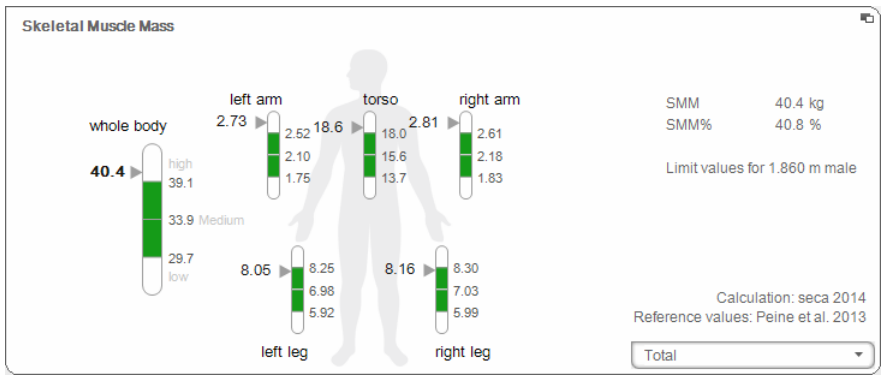
The following detail views are available for this module:

Display of normal fat-free mass range for adults



Display of normal fat mass range for adults

Skeletal muscle mass

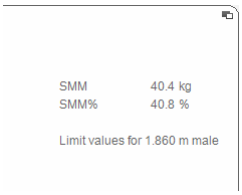


For this parameter, you can have the following additional information displayed for each part of the body:

- Skeletal Muscle Mass (SMM) in kg
- Skeletal Muscle Mass (SMM) in %
- height and gender as a reference for the limit values used

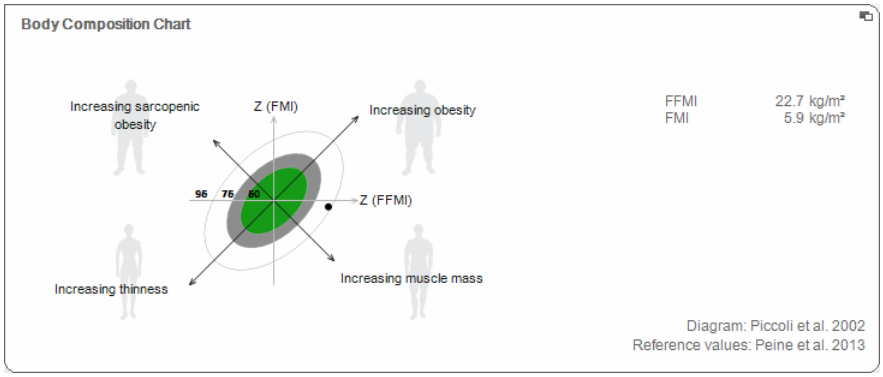
1. Click on the drop-down menu
   The drop-down menu opens.

2. Click on the desired part of the body.



The additional information for the selected part of the body is displayed.

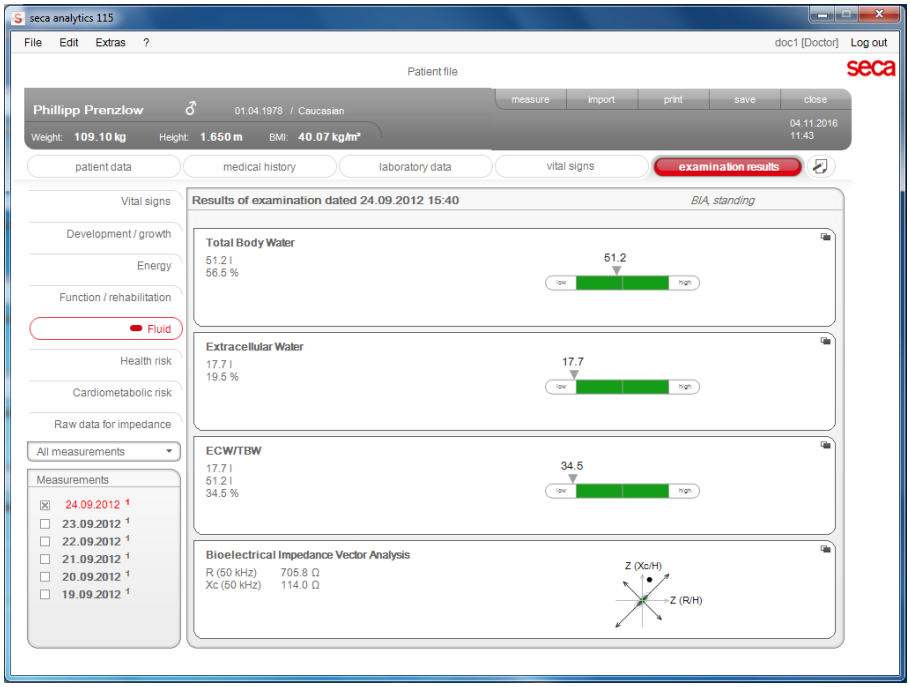
Body Composition Chart (mass indices)



Fluid This module allows a person's fluids status to be determined.

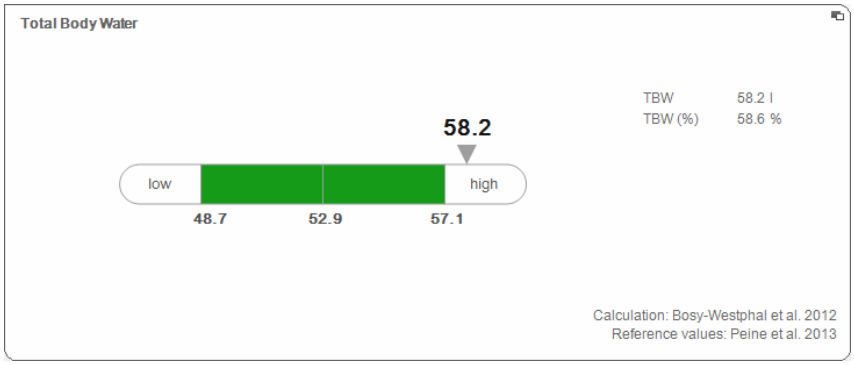
The parameters height and weight, as well as a bioimpedance analysis, are required for this module. The following parameters are displayed:

- Total Body Water (TBW)
- Extracellular Water (ECW)
- ECW/TBW ratio
- Bioelectric Impedance Vector Analysis (BIVA)

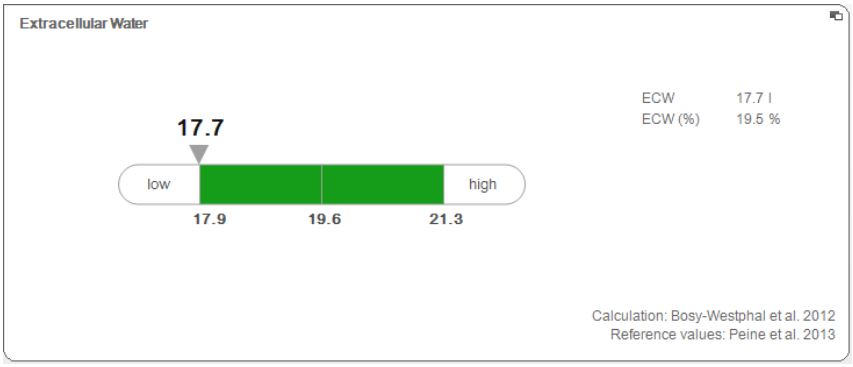


The following detail view is available for this module:

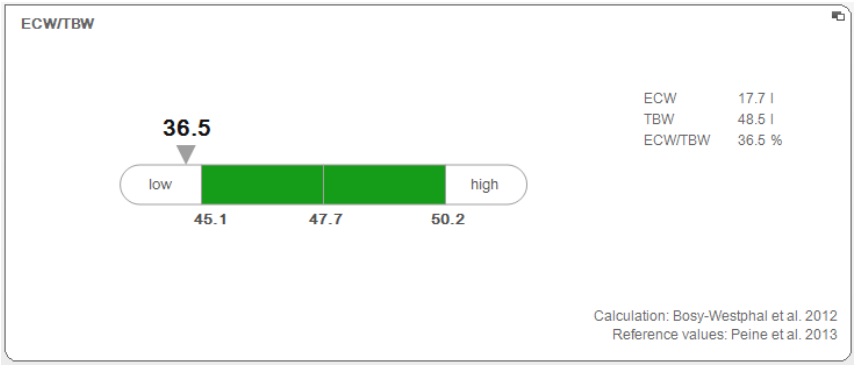
Total Body Water



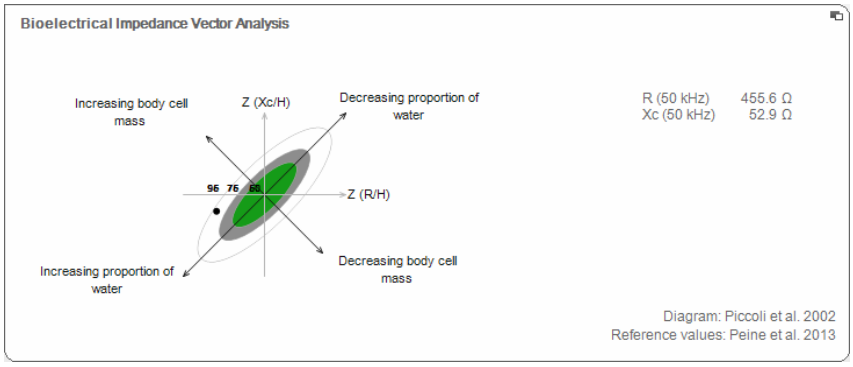
Extracellular Water



ECW/TBW ratio



Bioimpedance vector analysis

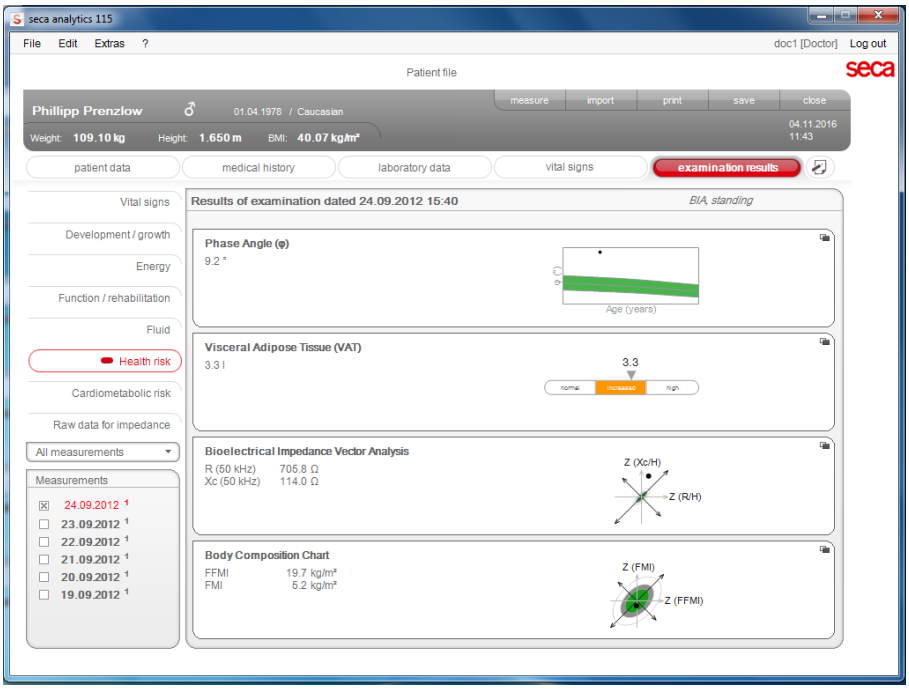


Health risk

The aim of this module is to provide an overview of body composition and to compare the results with values for healthy people. A body composition which deviates from the normal range is an indicator which can be used to assess the risk to health. The goal is to determine the general state of health or, in the case of a previously known disease, assess its severity.

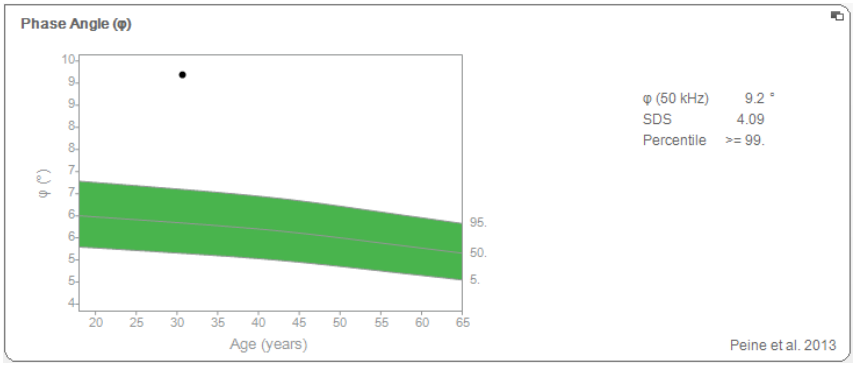
The parameters height and weight, as well as a bioimpedance analysis, are required for this module. The following parameters are displayed:

- Phase Angle (φ) (Phasenwinkel)
- Visceral Adipose Tissue (VAT)
- Bioelectric Impedance Vector Analysis (BIVA)
- Body Composition Chart (BCC)

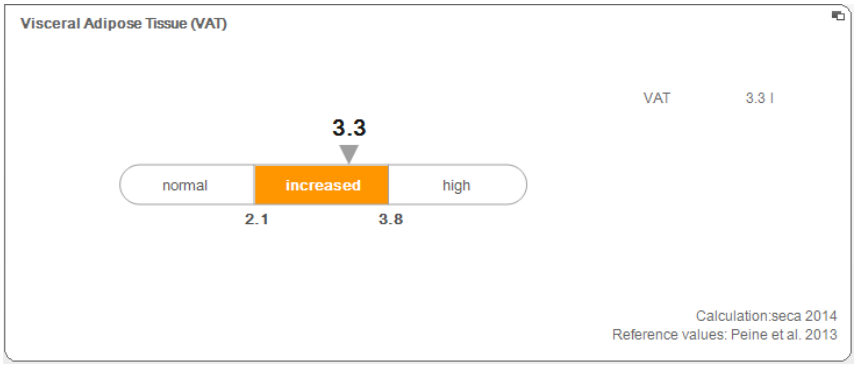


The following detail views are available for this module:

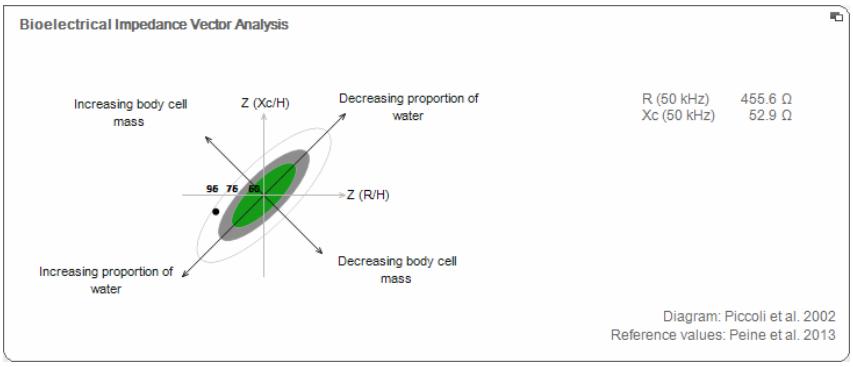
Phase Angle



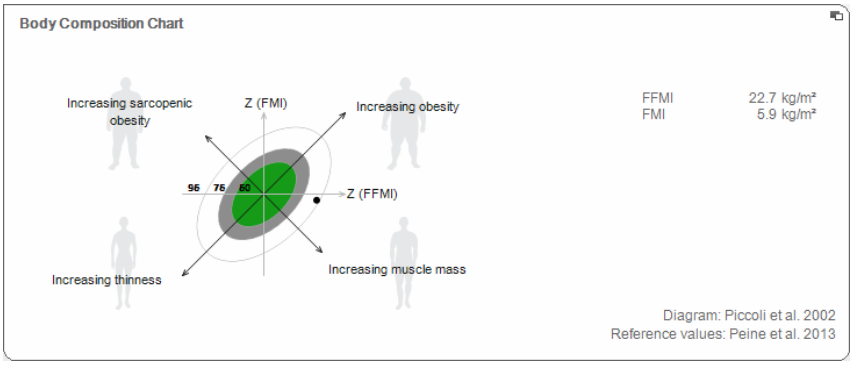
Visceral Adipose Tissue



Bioelectric Impedance Vector Analysis



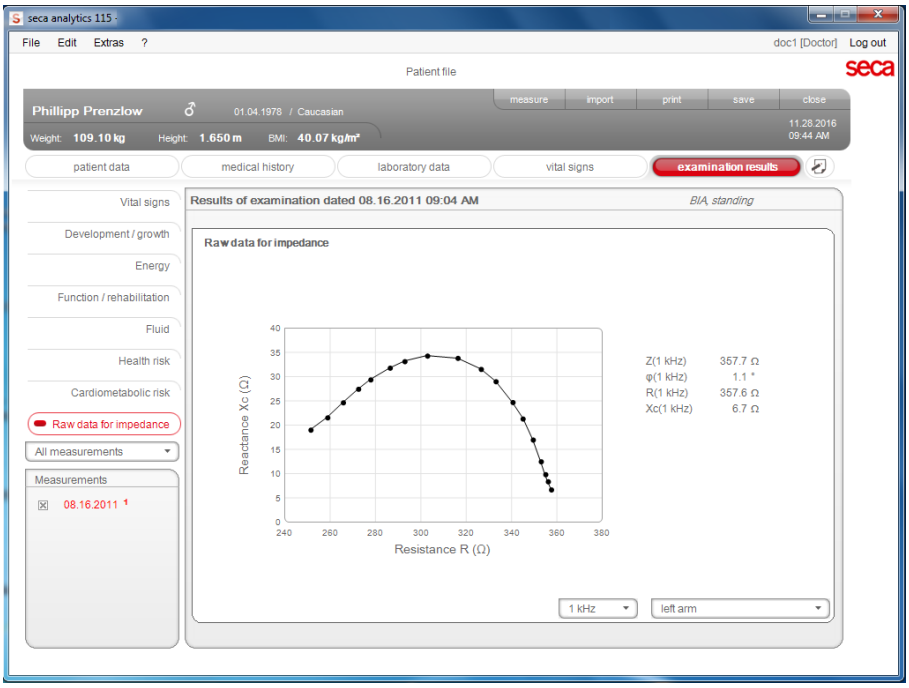
Body Composition Chart (mass indices)



Raw data for impedance

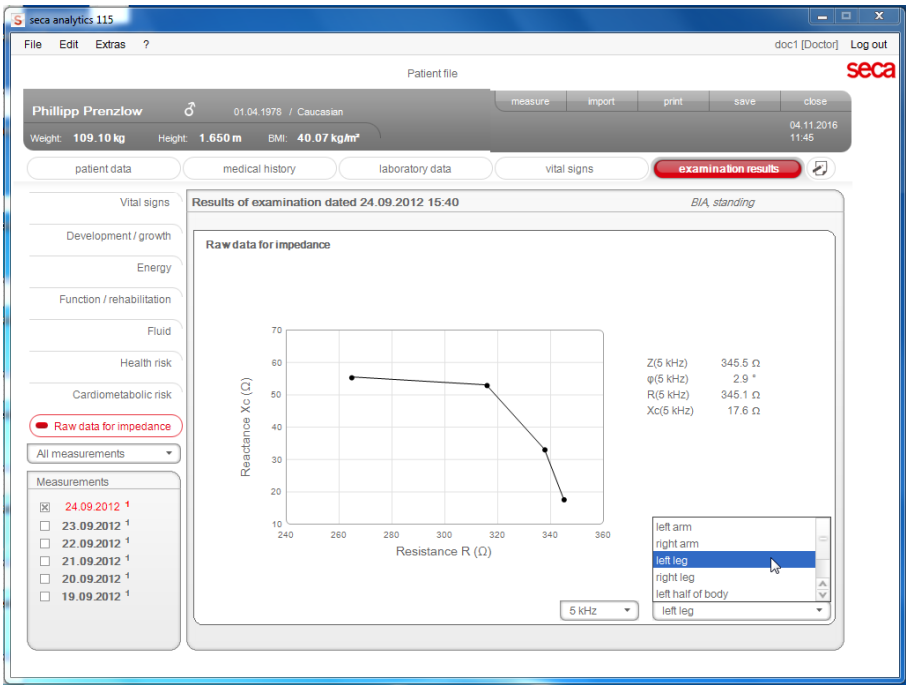
This module shows detailed raw data for resistance (R), reactance (X_C), impedance (Z) and phase angle (φ) for information purposes.

You can also view impedance (Z), reactance (X_C), resistance (R) and phase angle (φ) for individual parts of the body and frequencies.



Selecting the part of the body

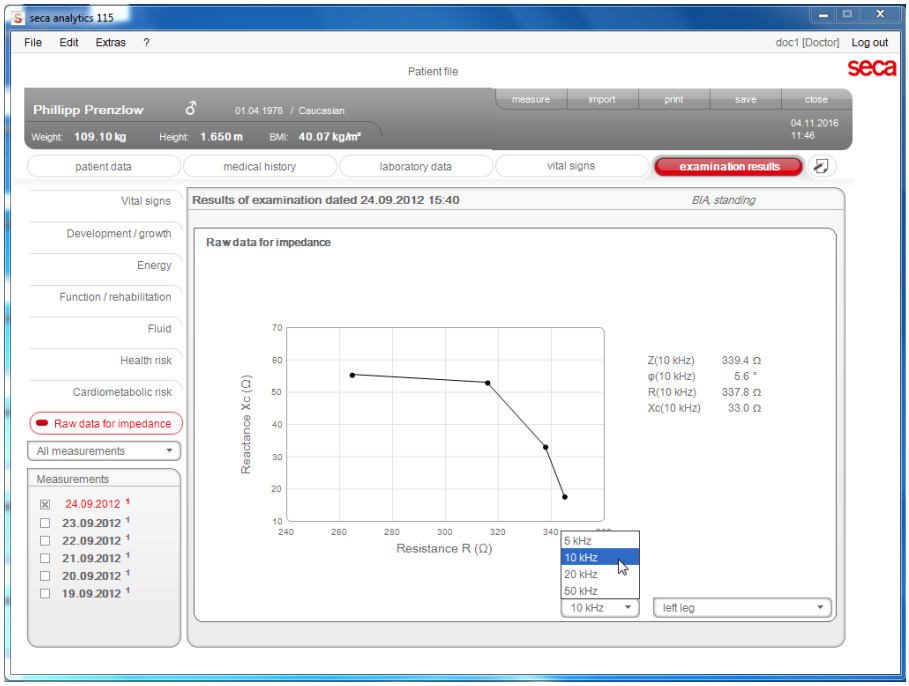
1. Click on the drop-down menu to select the part of the body.



   The drop-down menu opens.
2. Click on the desired part of the body.
3. The values for the selected part of the body are displayed.

Selecting frequency

1. Click on the drop-down menu to select the frequency.



The drop-down menu opens.

2. Click on the desired frequency.

NOTE:
If the **Raw data for impedance** module on the mBCA was not activated, only four frequencies will be available to choose from.

3. The values for the selected frequency are displayed.

6.2 References

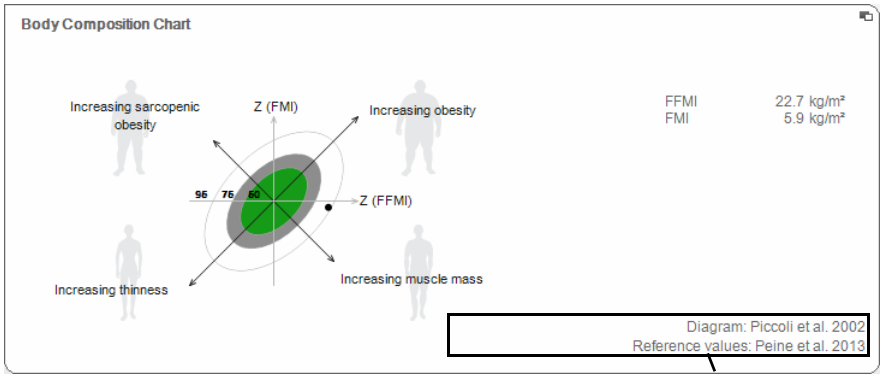
Bioimpedance analysis using a seca medical Body Composition Analyzer is scientifically based on clinical studies. The results of the clinical studies are stored as references in the seca mBCA and in the **seca 115** PC software and form the basis for assessing your patients' state of health

For some evaluation parameters (e.g. waist circumference for children), the reference used depends on the patient's ethnicity. The device automatically uses ethnicity-dependent references to suit the corresponding entry in the seca patient file (see “Creating a new seca patient file” on page 25).

Which references you use depends on the country in which you are operating, the regulations applying in your institution and your personal preferences.

For information about how to set the references in this **seca 115** PC software, see “Changing references” from page 14.

The evaluation module in question indicates which clinical study is being used as a reference for determining and assessing an evaluation parameter, e.g. “Peine et al. 2013”.



Reference used

Details about the clinical studies referenced can be found on our website www.seca.com.

7. TECHNICAL INFORMATION

7.1 Technical modifications

seca 115 PC software, Version 1.4 from Build 560	
Downward-compatible?	No
Compatible devices:	• **seca mBCA 525** (lying measurements): software Version 1.0 from Build 600 • **seca mBCA 515/514** (standing measurements): software Version 1.1 from Build 550 • **seca mVSA 535** (vital signs measurement): software Version 1.0 from Build 600 • **seca 360° wireless** measuring devices: unrestricted (not compatible: seca wireless printer)
seca patient database	Existing seca patient database is adopted in the current version of the PC software; no further access is then possible using older versions of the PC software
New	• **Vital signs** module - Evaluation of vital signs measurement using seca mVSA - Vital signs measured results shown in analogy to other measured results - Vital signs measured results printed out in analogy to other measured results • **Select printer for mBCA** function renamed **Select printer** for seca mBCA and seca mVSA • Data connection to **seca mVSA 535** with automatic synchronization • Network connection for **seca mBCA 525** and **seca mVSA 535** possible via WiFi
Modified	• Results graphs shown in percent: Fat-free mass index (FMI), skeletal muscle mass (SMM) • Blood pressure values moved from **laboratory data** tab to **Vital signs** tab • **examination results** tab - **Measurements** window: Filter by lying BIA measurement, standing BIA measurement, lying BIA measurement with vital signs, vital signs

Downward-compatible?	No
Compatible devices:	• **seca mBCA 525** (lying measurements): software Version 1.0 • **seca mBCA 515/514** (standing measurements): software Version 1.1 from Build 293 • **seca 360° wireless** measuring devices: unrestricted (not compatible: seca wireless printer)
seca patient database	Existing seca patient database is adopted in the current version of the PC software; no further access is then possible using older versions of the PC software
New	• **Extras\Printouts ...** tab - Configurable printout of measured results - Individual selection of measured results for progression graphs possible • **Extras\Patient texts ...** tab - Configurable patient texts
Modified	• Optimized representation of results graphs: Fat-free mass (FFM), fat mass (FM), body mass index (BMI), body composition chart (BCC), skeletal muscle mass (SMM) • Hydration (HYD) parameter changed to extracellular water (ECW)/total body water (TBW)

seca 115 PC software, Version 1.4 from Build 381	
Downward-compatible?	No
Compatible devices:	• **seca mBCA 525** (lying measurements): software Version 1.0 • **seca mBCA 515/514** (standing measurements): software Version 1.1 from Build 271 • **seca 360° wireless** measuring devices: unrestricted (not compatible: seca wireless printer)
seca patient database	Existing seca patient database is adopted in the current version of the PC software; no further access is then possible using older versions of the PC software

seca 115 PC software, Version 1.4 from Build 381	
New	• **examination results** tab - **Measurements** window: Lying measurements are marked "*" - **examination results** window: History of lying measurements is marked "Lying measurements only" - Mixed history (lying and standing measurements) not possible • For data connection to **seca mBCA 525** - In the **Extras\Settings** menu (login: admin) **Synchronization** section added: automatic synchronization of seca patient files and user accounts - Automatic synchronization not available for **seca mBCA 515/514** • **Send to mBCA** function not required for **seca mBCA 525**, unchanged for **seca mBCA 515/514**
Modified	Name of **Extras\Wireless configuration** menu entry (login: admin) changed to: **Extras\seca 360° configuration**

Combination of seca mBCA seca 515/514 (SW version 1.1) and seca 115 (SW version 1.4)	
Downward-compatible?	No
seca patient database	Existing seca patient database is adopted in the current version of the PC software; no further access is then possible using older versions of the PC software
New	• Regional settings: “Name format” drop-down menu • Enter waist circumference with “Health risk” evaluation module activated (seca mBCA only) • Visceral fat (VAT) parameter in the “Health risk” evaluation module • Skeletal muscle mass (SMM) parameter in the “Function/rehabilitation” evaluation module • In evaluation modules: comments function for every evaluation parameter • Send individual secaseca patient file from the **seca 115** PC software to a seca mBCA • Initiate a printout of results reports directly on the seca mBCA
Modified	Graphical representation: phase angle (φ), bioimpedance vector analysis (BIVA), body composition chart (BCC), total body water (TBW)
No longer applicable	Lean soft tissue mass (LST) parameter in the “Function/rehabilitation” evaluation module

7.2 Display of weight values

The **seca 115** PC software displays the weight values it receives only in the unit set in the PC software. If the setting on the transmitting device is different, the weight values will be converted automatically. Details are in the table below.

seca 115 PC software setting	seca device setting	seca 115 display	
		Weight ≤ 20 kg	Weight > 20 kg
kg	kg	kkk.ggg	kkk.gg
	lbs		
	sts		
	-	kkk.gg[1)]	
lbs	kg	ppp:oo.o	ppp.p
	lbs		
	sts		
	-	ppp.p[1)]	
sts	kg	s:pp:oo.o	ss:pp.p
	lbs		
	sts		
	-	ss:pp.p[1)]	

[1)] Manual entry of measured values directly in the PC software **seca 115**

8. WARRANTY

Please note that this PC software is subject to restrictions on the warranty which may arise in conjunction with the license, for example. The warranty restrictions can be called up at www.seca.com.

9. DECLARATION OF CONFORMITY

seca gmbh & co. kg hereby declares that the product meets the terms of the applicable European directives. The unabridged declaration of conformity can be found at: www.seca.com.

17-10-01-254-002a/02-2017 B

Medical Measuring Systems and Scales since 1840

seca gmbh & co. kg
Hammer Steindamm 3–25
22089 Hamburg · Germany

Telephone +49 40 20 00 00 0
Fax +49 40 20 00 00 50

info@seca.com

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