



# Cardiac Monitor

## Patient Information



**BIOTRONIK**  
excellence for life

# We Listen to Your Heart

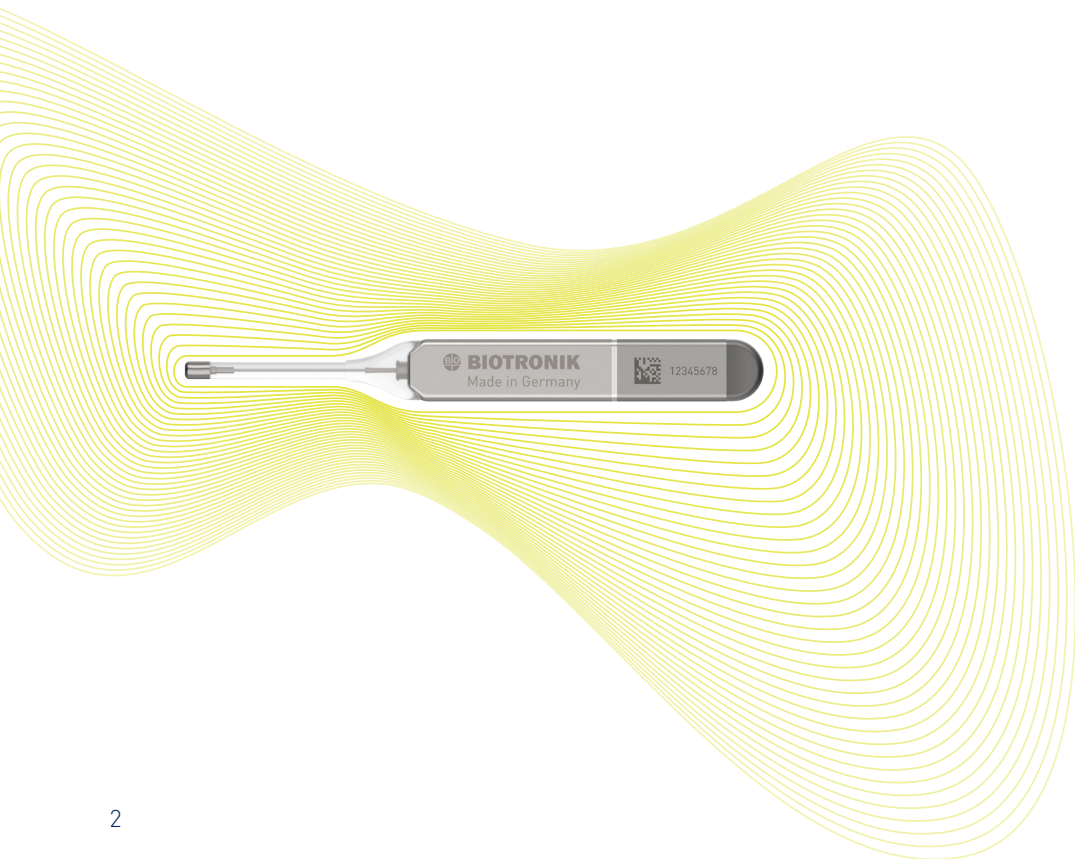


## Dear patient,

Your doctor has chosen a BIOTRONIK cardiac monitor for you. This device is designed to continually monitor your cardiac rhythm over an extended period of time and report any irregularities in your heartbeat to your doctor.

This brochure explains what a BIOTRONIK cardiac monitor does and how it works.

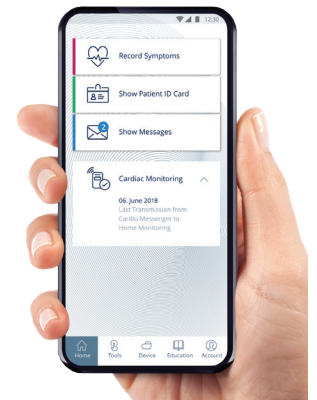
## Cardiac Monitor and Accessories



**Cardiac Monitor**  
for recording  
heart rate



**Remote Assistant**  
for ECG recording  
by the patient



**Patient App**  
to manage additional  
functions in relation to  
your cardiac monitor

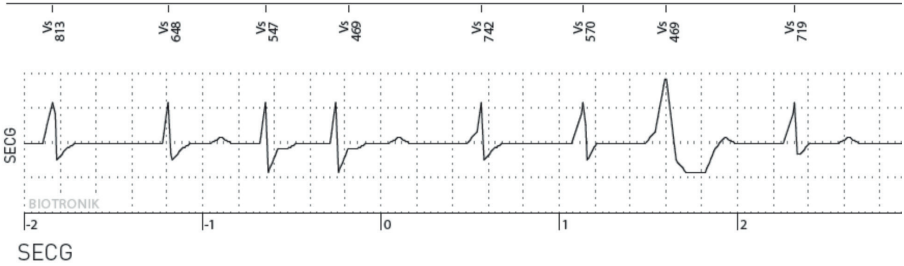


# The Heart at a Glance

## What Is a Cardiac Monitor?

A cardiac monitor is a small ECG (electrocardiogram) recorder that continuously monitors your heart rhythm over an extended period of time and stores information about any irregularities in your heartbeat.

With the help of these ECG recordings, your doctor is in a better position to make decisions about your treatment plan so you will receive the best possible care.



Example of an ECG recording

# Reliable Diagnostics



## What Does a Cardiac Monitor Do?

Some cardiac rhythm disturbances can occur spontaneously, and as a patient, you may or may not experience symptoms (such as lightheadedness, dizziness or fainting) associated with these events. That does not make diagnosing your condition easy for your doctor. A cardiac monitor offers your physician the opportunity to continually monitor your heart rhythm closely so an informed diagnosis and optimal treatment plan may be made.

A cardiac monitor is usually recommended for patients whose doctors suspect cardiac rhythm disturbances in the atria or other chambers of the heart. Using a cardiac monitor, your doctor can firmly diagnose each rhythm disturbance and from that initiate appropriate therapy. Atrial fibrillation, for example, can be reliably detected by a BIOTRONIK cardiac monitor and this can potentially help to prevent serious complications. Furthermore, a BIOTRONIK cardiac monitor can also provide important information on the cause of dizziness or fainting spells of unknown origin.

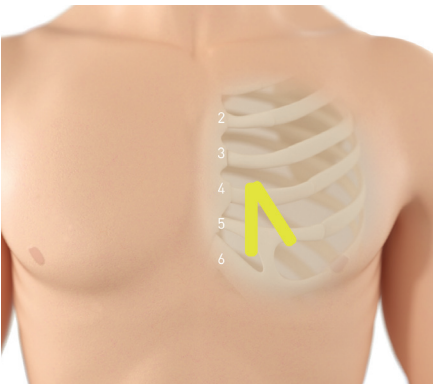
Your doctor will be the best person to explain to you in a personal consultation what the advantages of a BIOTRONIK cardiac monitor are for you and how it can support your treatment.





# Easy Injection

## What Is a Cardiac Monitor Injection Procedure?



Possible positions of a cardiac monitor



Small scar after the injection of a cardiac monitor

Injection of a BIOTRONIK cardiac monitor is a minor, routine procedure that is performed under local anesthesia and only takes a few minutes. It is usually injected subcutaneously (under the skin) on the left side of the chest above the heart to best measure heart signals.

## How Long Will I Need a Cardiac Monitor?

The battery capacity of a BIOTRONIK cardiac monitor is enough to be able to continuously monitor a patient's heart rhythm for several years. However, the duration necessary for you to use the cardiac monitor will depend on your condition and the medical opinion of your doctor.



# Reliable Sensing

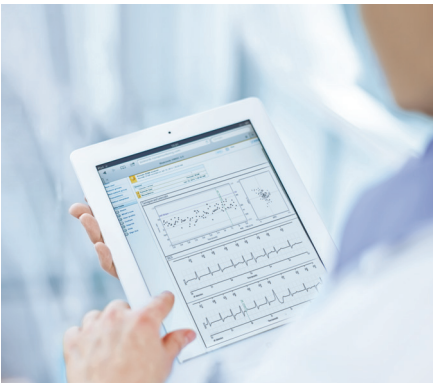
## How Does a Cardiac Monitor Work?



BIOTRONIK cardiac monitor

A cardiac monitor measures heart signals using sensors that are located at both ends of the device. Unlike an external heart monitor, a BIOTRONIK cardiac monitor operates without cables or attachments to the skin. As a result, you can maintain normal activities in your everyday life.

The special design of the BIOTRONIK cardiac monitor allows optimal signal quality, and the device can record irregularities in the heartbeat very precisely and then store them. Stored ECGs can be transmitted to the doctor through the BIOTRONIK Home Monitoring® Service Center on a daily basis.



ECG analysis using BIOTRONIK Home Monitoring

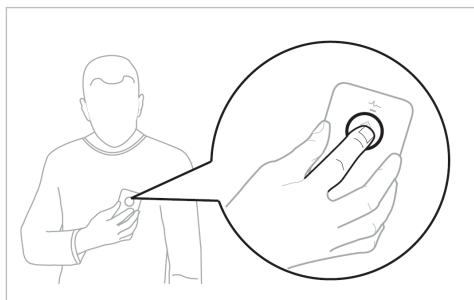


## Capture the Precise Moment

### What Is the Remote Assistant and How Do I Use It?

Usually, a cardiac monitor records each measured irregularity in your heart rhythm independently and automatically. If your doctor thinks it necessary, he or she can give you the Remote Assistant to take home. You then have the opportunity of triggering additional ECG recordings – e.g., after loss of consciousness or if you experience symptoms such as dizziness or a racing heart.

You can start the ECG recording by guiding the Remote Assistant onto the point on your chest where the BIOTRONIK cardiac monitor has been inserted. Press the trigger key and hold the device in this position for at least three seconds. The cardiac monitor then saves all heart rhythms from the last seven minutes retrospectively as an ECG. Your doctor then has the opportunity of establishing, if necessary, any correlations between your symptoms and your heart rhythm.



Place the Remote Assistant over the implanted cardiac monitor, briefly press the trigger key on the Remote Assistant and hold it over cardiac monitor for at least three seconds

**Note:** If you receive a Remote Assistant, always carry it with you if possible. Only use it after receiving detailed instructions from your doctor. If necessary, instruct your relatives or your partner about how to use the Remote Assistant. Please refer to the technical manual for further information.



## Everyday Life

### What Impact Does a Cardiac Monitor Have on My Everyday Life?

As the injection of the BIOTRONIK cardiac monitor only requires a minor procedure, most patients can return to their normal activities soon afterwards. The cardiac monitor does not restrict your lifestyle.

### Is the Cardiac Monitor Affected by Electronic Equipment?

The BIOTRONIK cardiac monitor is effectively shielded from and fully protected against electromagnetic interference from other devices. You can therefore use the following household devices at all times without hesitation:

- TV/projector, radios, wireless headphones, stereo equipment and similar audiovisual devices
- Cordless phones/cellular phones
- Hair dryers, electric shavers and other electronic bathroom equipment
- Common household and kitchen appliances, such as washing machines, vacuum cleaners, dishwashers, handheld blenders and microwaves – with the exception of induction cooktops
- Blood pressure devices and heart rate monitors
- Computers/notebooks, WLAN, fax machines, copy machines, printers and similar equipment



## Everyday Life

### What Else Do I Need to Know?

As a patient with a cardiac monitor, you should generally avoid equipment and devices that generate strong mechanical forces or electromagnetic fields. These can interfere with the proper functioning of your cardiac monitor and affect the data recording. Use your cellular phone on the opposite side of your body away from the cardiac monitor and hold it at least 15 cm (6 inches) away from the injected device, both when using it and when storing it.

You should use or access the following electronic devices or equipment with particular caution. Please also follow the special instructions of the device manufacturer.

- Induction cooktops
- Body fat scales
- Power tools and machines that generate strong vibrations (e.g., electric drills, saws and firearms)
- Electric devices with strong electric fields or high-voltage cables
- Electric welders
- Large transmission facilities for radio, television and radar; electric, unshielded ignition systems

### Information on Medical Examinations

If you want to undergo a diagnostic test (e.g., in an MRI [magnetic resonance imaging] scanner), or are planning a medical procedure, please tell your doctor that you have a cardiac monitor.

BIOTRONIK cardiac monitors are approved for MRI scans of the body.

## Travel Freely



### What Do I Need to Know About Antitheft Devices or Security Checks at the Airport?

Your cardiac monitor is fully protected against interference, such as from department store antitheft devices and security systems at airports. However, strong magnetic fields can influence the device and may trigger unwanted ECG recordings.

When passing antitheft devices in department stores, please do not stop within such areas, but pass through them rapidly. You might want to point out that you have a cardiac monitor inserted and that you could trigger an alarm as a result. Remember that you can show your patient ID card if required. The same applies to security checks at airports or elsewhere.



MRI scan



Travel safely

# Continuous Remote Monitoring Anytime, Anywhere

## How Does the Cardiac Monitor Detect Cardiac Rhythm Disturbances Promptly?

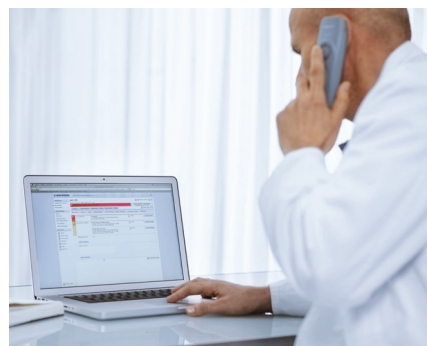
BIOTRONIK has for many years been offering the opportunity of transmitting the saved device data by telemedicine to the doctor via BIOTRONIK Home Monitoring.

In this way, the doctor has the opportunity to remotely monitor your cardiac rhythm with the ECG data on

a daily basis and easily diagnose any rhythm disturbances. Each recorded episode is automatically transmitted within 24 hours and sent to your doctor no matter where you are.



Daily remote cardiac monitoring



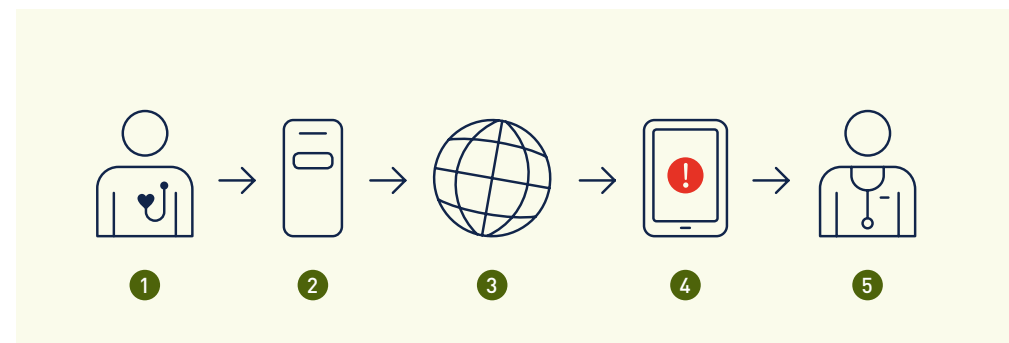
ECG transmission to the doctor

## How Does BIOTRONIK Home Monitoring Process the Data?

Your cardiac monitor **(1)** records important heart and device information on a daily basis and automatically passes this on during the night to the CardioMessenger Smart **(2)**. The CardioMessenger Smart sends these data encrypted over the cellular phone network **(3)** to the Home Monitoring Service Center.

There, all information is evaluated for each individual patient, filtered and summarized in what is known as a CardioReport **(4)**. Your doctor can then access all the values via a protected web page and follow any patient's cardiac rhythm on a daily basis **(5)**.

## Data Transmission with BIOTRONIK Home Monitoring



The CardioMessenger Smart transmits your heart data automatically once a day, anywhere in the world where there is a cellular phone signal.

## Continuous Remote Monitoring Anytime, Anywhere

### What Do I Need for Data Transmission with BIOTRONIK Home Monitoring?



To enable the telemedical transmission of remote monitoring data using BIOTRONIK Home Monitoring, you need a CardioMessenger device.

Once the CardioMessenger is provided to you, allow your doctor or a trained member of the nursing staff to explain

to you what the CardioMessenger does. If possible, find out how and when you can reach your practice or clinic if you need to.

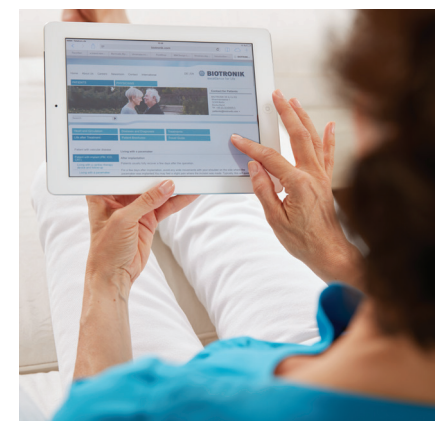
### How Do I Operate the CardioMessenger Smart at Home?

To ensure that your device data can be reliably transmitted to your doctor every day, place your device on your bedside table before bedtime and charge it via the power cable. An LED-free on/off light indicator ensures undisturbed sleep. Make sure that you never carry the CardioMessenger Smart directly over the cardiac monitor, such as in your breast pocket. The same applies to cellular phones that you use on a daily basis. Please refer to the CardioMessenger Smart technical manual for further information.

Further information about treatment and follow-up care can be found online at the following website:

**[www.biotronik.com/patients](http://www.biotronik.com/patients)**

Please do not hesitate to contact the BIOTRONIK service team by email at **[patients@biotronik.com](mailto:patients@biotronik.com)** should you have any questions about your cardiac monitor or Home Monitoring care.





# BIOTRONIK Patient App

## What Is the Patient App?

The BIOTRONIK Patient App is a software application with additional functions in relation to the injectable cardiac monitor and is dedicated to patients with a BIOMONITOR III (or later model).

## How Can the App Be Used?

The App can be used in three ways:

- Keep an eye on your own health. Use the Patient App to record your symptoms quickly and conveniently for discussion with your physician.
- Have control over the data transmission. Determine the status of the last data transmission from your injected device to BIOTRONIK Home Monitoring. The App helps you to resolve possible transmission errors.
- Simplify your everyday life with convenient app functions. Quickly access your patient ID card when needed, such as during an airport security check.



# BIOTRONIK Cardiac Monitor

## Patient Information

### **BIOTRONIK SE & Co. KG**

BIOTRONIK is a medical technology company that develops trusted and innovative cardiovascular and endovascular solutions. Driven by purpose and integrity, BIOTRONIK has partnered with hospitals and health systems for more than 50 years, helping to deliver care that saves and improves the lives of millions of patients with heart and blood vessel diseases. BIOTRONIK is headquartered in Berlin, Germany, and represented in over 100 countries.

