Introduction to
BIOTRONIK Home Monitoring

What is Home Monitoring?

BIOTRONIK Home Monitoring is a system that allows your doctor to monitor your heart health and your implanted device remotely through daily data transmissions. These are sent, without you having to do anything, directly from your implant, through a transmitter (the CardioMessenger), and then to your doctor. This means that your doctor can regularly evaluate your condition and make sure that your implanted device is functioning properly.

Is Home Monitoring for me?

In general, Home Monitoring patients feel more secure and benefit from a higher quality of life as clinical events can be more rapidly identified and treated.[4, 5] This means that fewer hospital stays are required.[1, 5, 6, 2] While remote monitoring cannot replace a call to your doctor or a stay in hospital in an emergency, the number of routine follow-ups can be reduced and only scheduled when needed. This will allow you and your relatives to save time and avoid unnecessary traveling.

There are also distinct benefits for specific conditions or implants:

In office follow-ups can be reduced

Congestive Heart Failure
For people suffering from congestive heart failure, close monitoring of the heart is important to improve wellbeing in the long term. Research studies have shown that heart failure patients have clear survival advantages when under Home Monitoring care.[2, 3, 7]

ICDs (Implantable Cardioverter Defibrillators)
For those with an ICD, Home Monitoring can provide significant relief as inappropriate shocks can be reduced if your doctor has more reliable information.[1]

Pacemakers
For people dependent on a pacemaker, the status and success of their therapy can be checked at any time.

BIOTRONIK
excellence for life

How does Home Monitoring work?

BIOTRONIK implants record your heart's behaviour and device status, around the clock, and everything is saved to the device. For those implants that are Home Monitoring enabled, all this data is sent, once every 24 hours, to a patient transmitter: the CardioMessenger. The CardioMessenger then transmits this data wirelessly to the Home Monitoring Service Center, in encrypted form, where it is compiled for your doctor. Your doctor can set alerts for specific heart behaviors or changes in your device's status. If one of these is triggered, your doctor will get a notification within 24 hours by e-mail or SMS. This allows health or technical problems to be detected long before the next scheduled follow-up examination.

Each night your device sends its information to the CardioMessenger.

The CardioMessenger sends the data securely to the Home Monitoring Service Center.

The Home Monitoring Service Center stores all the data and compiles it into your patient report.

Your doctor can then access your data online by logging into a secure website.

Decisions about your care can then be made remotely and actions taken when necessary.

The CardioMessenger Smart

To enable Home Monitoring, your doctor will give you an easy to use transmitter, the CardioMessenger Smart. This receives the data from your device and sends it, wirelessly and automatically, over the phone network to your doctor.

The CardioMessenger Smart resembles a smartphone and has a battery that can be used for up to 48 hours before you need to recharge it. To ensure that your device data can be reliably transmitted every day, you can simply place your CardioMessenger on your bedside table when going to bed and plug it in to charge. It will connect to your device automatically. If you are going on holiday, or will be traveling overnight, you can take your CardioMessenger with you; just don't forget to bring the charger along.

The CardioMessenger Smart is the size of a smartphone

For more information, added safety and peace of mind, speak to your doctor about enabling Home Monitoring.
For further information please visit biotronik.com/patients

1 Guédon-Moreau, L., Chevalier, P., Marquié, C., Kouakam, C., Klug, D., Lacroix, D., Brigadeau, F., et al. (2010). Contributions of remote monitoring to the followup of implantable cardioverter–defibrillator leads under advisory. European Heart Journal, 31, 2246–2252. **2** Freeman, J. V., & Saxon, L. (2015). Remote monitoring and outcomes in pacemaker and defibrillator patients: big data saving lives? Journal of the American College of Cardiology, 23, 2611–2613. **3** Hindricks G, Taborsky M, Glikson M, Katz A, Heinrich U., Schumacher B, et al. Implantbased multiparameter telemonitoring of patients with heart failure (IN-TIME): a randomised controlled trial. Lancet 2014 Aug 16; 384(9943): 583–90. **4** Ricci RP, Morichelli L, Quarta L, Sassi A, Porfili A, Laudadio MT, et al. Longterm patient acceptance of and satisfaction with implanted device remote monitoring. Europace 2010 May; 12(5): 674–9. **5** Mabo P, Victor F, Bazin P, Ahres S, Babuty D, Da Costa A, et al. A Randomized Trial of Long-Term Remote Monitoring of Pacemaker Recipients (The COMPAS trial). European Heart Journal 2012 May; 33(9): 1105–11. **6** Varma N, Epstein AE, Irimpen A, Schweikert R, Love C. Efficacy and safety of automatic remote monitoring for implantable cardioverter-defibrillator followup: the Lumos-T Safely Reduces Routine Office Device Follow-up (TRUST) trial. Circulation 2010 Jul 27; 122(4): 325–32. **7** Parthiban, N., Esterman, A., Mahajan, R., Twomey, D. J., Pathak, R. K., Lau, D. H., et al. (2015). Remote monitoring of implantable cardioverter-defibrillators: a systematic review and meta-analysis of clinical outcomes. Journal of the American College of Cardiology, 23, 2591–2600.