

microlife®

Microlife AFIB technology in primary care.

The AF detection system has convincingly proven its accuracy, and showed that it leads to increased detection of new patients with AF when used in general clinical practice.

Recommended by NICE

The National Institute for Health and Care Excellence (NICE) officially recommends using the WatchBP Home A during routine blood pressure measurement for all general practitioners in the United Kingdom. [20]

- “The available evidence suggests that the device reliably detects atrial fibrillation and may increase the rate of detection when used in primary care.”
- “WatchBP Home A should be considered for use in people with suspected hypertension and those being screened or monitored for hypertension, in primary care.”
- Prevention of 2,000 strokes per year in the UK
- Healthcare cost savings of € 31 million a year

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AFIB

#1 Atrial fibrillation
detection recommended
by doctors [20]



microlife®

A partner for people. For life.

AFIB

The first step in
stroke prevention.



Microlife AFIB technology
Blood pressure monitors
with Atrial Fibrillation (AF) detection.

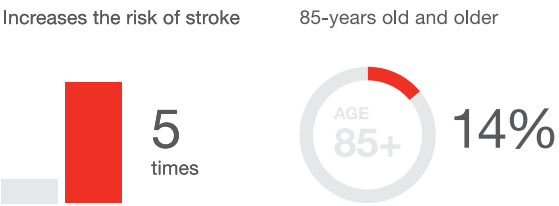


Microlife AFIB presents the most reliable detection of atrial fibrillation during blood pressure measurements.

Atrial Fibrillation (AF) causes high risk of stroke ^[1]. Approximately 40% of AF patients have no symptoms ^[2] so that many of them are diagnosed by coincidence when hospitalized for other reasons ^[3], including stroke ^[4, 5].

Who is affected?

AF is the most common sustained cardiac arrhythmia occurring in 5% of the population of 65 years and older and in 14% older than 85 years. AF leads to a 5-fold higher risk of stroke and is responsible for 20% of all strokes. Many people have no symptoms from AF and, therefore, remain undiagnosed. Early detection of AF followed by adequate treatment can reduce the risk of a stroke by 68% ^[6-8].



What is Atrial Fibrillation (AF)?

In the case of AF, the heart chambers beat chaotically and irregularly. This can cause blood to accumulate in the atria of the heart, clump together, and form blood clots. These blood clots can then migrate through the bloodstream to the brain, where they block the blood vessels and this causes a stroke. The dangerous part of AF is, that about 70% of the AF episodes are asymptomatic and remain undiagnosed. In addition, at the beginning AF generally appears only irregularly and can, therefore, be overlooked even during sporadic doctor's visits. Following risk factors can additionally increase the risk of having AF:

- Age
- Hypertension
- Diabetes
- Cardiovascular diseases
- Stress
- Smoking
- Alcohol
- Obesity



How Microlife’s patented AFIB technology works

(US Patents: US 7,680,532 - US 7,020,514 - US 7,706,868)

Microlife blood pressure monitors with implemented AFIB technology, allow patients to be screened for AF during blood pressure measurements at home, using a sophisticated algorithm. If AF is detected during blood pressure measurements, the AFIB symbol is displayed. Microlife AFIB does not make a diagnosis, but provides important information for your doctor, who can refer you for a 12-lead ECG to confirm the presence of AF.

MAM (Microlife Average Mode) – three automated sequential measurements for the best results

A systematic review of all clinical evidence to the Microlife AFIB detector ^[9] showed that the highest sensitivity value (97 %) is obtained when three sequential blood pressure measurements were performed with two or three AF positive readings. The highest specificity value (97 %) is obtained with three sequential measurements, of which all three must be AF positive. For this reason the Microlife blood pressure monitors with AFIB technology automatically measure three times.



Microlife AFIB: tested and medically proven for detecting atrial fibrillation

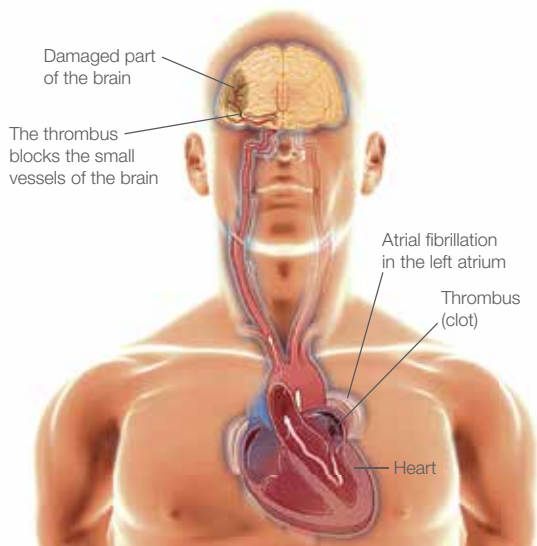
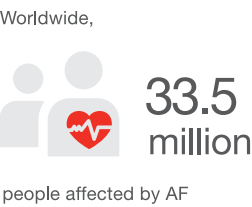
Microlife AFIB detects AF with high accuracy (sensitivity 98%, specificity 92%) as demonstrated in multiple comparative studies with ECG. It can be used as a reliable screening test for early diagnosis.

	Patients (n)	Setting	Average age (y)	AF n (%)	Non-AF n (%)	Sinus (n)	Sensitivity (%)	Specificity (%)
Wiesel 2004 ^[10]	450	Hospital	69	53 (12)	1	396	100	92
Stergiou 2009 ^[11]	73	Hospital	71	27 (37)	23	23	100	89
Wiesel 2009 ^[12]	405	Hospital	73	93 (23)	64	248	97	89
Wiesel 2013 (Tripps) ^[13]	139	Home	67	14 (10)	n.s.	125	99*	93*
Oxford trial 2014 ^[14]	999	Primary care	80	79 (8)	n.s.	920	95	90
Wiesel 2014 ^[15]	183	Hospital	74	30 (15)	n.s.	153	100	92
Gandolfo 2015 ^[16]	207	Hospital	78	38 (18.4)	n.s.	169	90	99
Chan 2017 ^[17]	2052	Primary care	68	24 (1.2)	156	1872	83	99
Chan 2017 ^[18]	5969	Primary care	67	72 (1.2)	430	5467	81	99

All studies were compared against 12-lead ECG unless otherwise indicated; AF indicates Atrial Fibrillation; n.s., not specified; *compared against electrocardiographic diagram

Oxford trial 2013 ^[14]

The university of Oxford in the UK, known as one of the best medical universities in the world, has performed a randomized clinical trial among 1,000 GP patients to reveal the best method for AF screening in primary care. This study showed that using the Microlife WatchBP Home A is the best method and is recommended for AF screening in primary care practice and for patients at home.



Irregular heartbeat feature – what is the difference with Microlife AFIB?

“The main purpose of the IHB detector, therefore, is not to diagnose arrhythmias but rather to serve as a warning message indicating that the BP reading may not be accurate because of the presence of arrhythmia.” ^[9, 19]

The majority of the available blood pressure devices allow blood pressure measurements to be applied simultaneously to irregular heartbeats and arrhythmias. However, this does not distinguish between the different types of arrhythmias. If the IHB / IHD symbol appears in the display, non-hazardous arrhythmias such as sinus arrhythmia, premature atrial contractions (PAC) or bradycardia are also included. This can lead to patient insecurity.

Microlife AFIB is the world's only, medically proven technology for blood pressure devices that only detects dangerous atrial fibrillation. The high degree of accuracy has been proven several times in clinical trials and has been recommended by international specialists and physicians.