

Let's work together for better health.

Microlife WatchBP Professional blood pressure monitors

The professional cardiovascular management solution for better diagnosis of heart diseases and stroke risks

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WatchBP

The professional cardiovascular management solution for better diagnosis of heart diseases and stroke risks

Clinical blood pressure measurement has limited accuracy because of:

- Slood pressure variability
- White coat effect/hypertension
- Masked hypertension

Therefore, guidelines recommend:

- Ambulatory (24-hour) blood pressure measurement
- Self-measurement of blood pressure at home
- Unattended automated office blood pressure measurement

Additional cardiovascular screening is also recommended for:

- Atrial Fibrillation (AF)
- Peripheral arterial disease
 - Ankle Brachial Index (ABI)
 - Inter-Arm Difference (IAD)
 - Pulse wave velocity (PWV)
- For special patient groups, WatchBP devices are validated and recommended to measure:
 - Children from the age of 3 years
 - Pregnant women with or without pre-eclampsia
 - Patients with end stage renal disease
 - Diabetes patients
 - Elderly
 - Patients with hypotension
 - Patients with atrial fibrillation

Microlife WatchBP presents a solution that makes screening for these important cardiovascular risks easy, fast and accurate.











Recommended by NICE

AFIB Detection (Microlife Technology)

WatchBP Products

Office Blood Pressure Measurement



WatchBP Office 2G



Ambulatory Blood Pressure Measurement



WatchBP O3

Self-Measurement of Blood Pressure at Home



WatchBP Home







WatchBP Home A BT

Accuracy and validations

Clinically validated blood pressure monitors

All Microlife WatchBP devices are validated according to the established international protocols.

Clinical devices

WatchBP	Validation	ı protocol	Circumstance				
Device	BIHS	ESH / ISO-AAMI	Gircumstance				
Office 2G		Pass	At rest/ L-XL Size cuff /children >3 year				
Office Vascular	A/A	Pass	At rest/ L-XL Size cuff /children >3 year				

*All devices are validated for L-XL size cuff and for children from the age of 3 years old.

Ambulatory blood pressure monitoring devices

WatchBP	Validatior	ı protocol	Circumstance
Device	BIHS	ESH / ISO-AAMI	Circumstance
O3 2G		Pass	At rest/ L-XL Size cuff /children >3 year

Self-measurement devices

WatchBP	Validation	n protocol	Oimmedanaa
Device	BIHS	ESH / ISO-AAMI	Circumstance
	A/A	Pass	At Rest
Homo	A/A		Pregnancy
Home	B/A		Pre-eclampsia
			L-XL Size Cuff
Homo A	A/A	Pass	At Rest
Home A		Pass	L-XL Size Cuff
Home A BT	A/A	Pass	At Rest
(Bluetooth [®])		Pass	L-XL Size Cuff

BIHS, British and Irish Hypertension Society; ESH, European Society of Hypertension; AAMI, Association for the Advancement of Medical Instrumentation; ISO, International Organization for Standardization.



Special patient validations

About special patient validations

Because of the technique that is used in automated oscillometric blood pressure monitors, they can be inaccurate when used in so-called special patient groups. This can lead to the fact that a blood pressure monitor that is validated in "regular subjects" may not give accurate readings when used e.g. during pregnancy or when used in children, elderly or diabetes patients. This can have serious clinical consequences.

Therefore, medical standard authorities require that a blood pressure monitor may only be recommended for such a special patient group if it has been validated for this specific group.

Microlife blood pressure monitors have passed many of these challenging validations so that they now may be recommended for almost all special patient groups.

			Stiff arte	eries			Very low E	3P values		٨F	
	ESRD	Diabetes	Elderly	Dialysis	Pre-eclampsia	Pregnancy alone	Hypotension	Children & adolescents	Obesity		
Microlife	•	•	•	•	٠	•	•	•	•	•	•

*ESRD, end-stage renal disease; AF, atrial fibrillation



Accurate measurement for End Stage Renal Disease

Microlife WatchBP is accurate for patients with end-stage renal disease.

Available models:

WatchBP Office 2G WatchBP Office Vascular WatchBP O3 2G

WatchBP Home WatchBP Home A WatchBP Home A BT

Patients with moderate to severe renal disease have a very high incidence of

hypertension, paired with stiff (calcified)

arteries. As automated measurements can be influenced by stiff arteries, a

special validation is required before

blood pressure monitors can be recommended for use among patients

with end stage renal disease.

4



What is Pre-eclampsia? Pre-eclampsia is defined as new hypertension and substantial proteinuria after 20 weeks gestation. Due to the unpredictable nature of pre-eclampsia, hypertensive women must have their blood pressure measured frequently.

Accurate measurement for Pre-eclampsia

WatchBP is accurate for use in pregnancy and pre-eclampsia.



WatchBP Office 2G WatchBP Office Vascular

WatchBP O3 2G WatchBP Home Most oscillometric blood pressure monitors underestimate blood pressure in pre-eclampsia. For this reason, oscillometric blood pressure monitors may only be recommended for use in pregnancy when specifically tested in this special patient group. The WatchBP Home allows pregnant women to measure their blood pressure at home which could reduce the number of hospital visits and may help to make motherhood safer.

Accurate measurement for children

WatchBP devices are validated for blood pressure measurement in children from the age of 3 years old.

Available models: WatchBP Office 2G WatchBP Office Vascular

WatchBP O3 2G watchBP Home Currently, blood pressure measurement is an important part of routine paediatric physical examination. However, as children have a high respiration rate and have difficulties in sitting still, one needs a blood pressure monitor with a highquality algorithm that can filter out these artefacts. In addition, a wide cuff range is needed that covers very small to large arm circumferences. The WatchBP blood pressure monitor has proven to cover all these aspects and therefore can be recommended for children and adolescents aged 3 to 18 years old.



Accurate measurement for diabetes patients

WatchBP blood pressure monitors are validated for blood pressure measurement in patients with diabetes.

Available models:

WatchBP Office 2G WatchBP Office Vascular WatchBP O3 2G

Patients with Diabetes Mellitus type 1 and 2 may have stiff arteries that can affect the blood pressure measurement. A recent validation study in diabetes patients type 1 and 2 showed that the WatchBP monitor is accurate when used in this patient group.

WatchBP Home WatchBP Home A WatchBP Home A BT

Available models: can be recom

Early detection of Atrial Fibrillation can reduce the risk of stroke by 68%.



What is Atrial Fibrillation (AF)?

AF is the most common sustained cardiac arrhythmia occurring in 5% of the population of 65 years and above and in 14% among those older than 85 years old. 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, whereas early treatment can reduce the risk of stroke by up to 68%. Damaged part of the brain The thrombus blocks the small vessels of the brain

Stroke due to Atrial Fibrillation

in the left atrium

Thrombus (clot)

Heart

Early detection and prevention

WatchBP monitors with Atrial Fibrillation (AF) detection system

WatchBP monitors with implemented AF detection system (AFIB) allow patients to be screened for AF during blood pressure measurement. WatchBP AFIB has consistently proven its accuracy and showed that it leads to increased detection of new patients with AF when used in general clinical practice.

Early detection of AF followed by adequate treatment can reduce the risk of a stroke by up to 68%



Wrist palpation

Wrist palpation, although commonly performed, has a low reliability.



"WatchBP Home A should be used for hypertension monitoring in primary care"

Tested and approved for detecting Atrial Fibrillation

WatchBP AFIB detects Atrial Fibrillation with high accuracy (sensitivity 98%, specificity 92%) as demonstrated in multiple comparative studies with ECG.



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 GPs in the United Kingdom.

www.nice.org.uk/MTG13

WatchBP is the only FDA and MDD cleared oscillometric BPM for atrial fibrillation screening

Advanced measurement technology

Advanced guideline-based measurements

The advantages of 3 consecutive measurements

- Superior reliability for blood pressure monitoring.
- Performing three sequential measurements diminishes the influence of an occasional deviating (high) reading.



Guidelines recommend taking at least two blood pressure readings each time and averaging the measurements, for a more reliable result.

Efficient screening for Peripheral Arterial Disease (PAD)

WatchBP monitors with Ankle Brachial Index (ABI) assessment system

WatchBP Office ABI monitors help physicians to diagnose PAD efficiently by performing ankle-arm blood pressure measurements to assess the Ankle Brachial Index. Accurate and easy to use.



Peripheral Arterial Disease (PAD)



Ankle Brachial Index is commonly assessed with a Doppler device. This method is time consuming and prone to error.



Fatty substances on the arterial wall

WatchBP Office Vascular is easy, fast and accurate for ABI assessment

What is Peripheral Arterial Disease (PAD)?

PAD is a frequently occurring cardiovascular risk factor that often remains undetected for a long time. In fact, 50% of all patients who have it usually show no symptoms. Patients with PAD have a three-fold higher risk of myocardial infarction, stroke, and death.

WatchBP Office

WatchBP Device	3 Consecutive measurements	Double arm measurement	Auscultatory mode	AFIB detection	ABI assessment	Central BP measurement	AOBPM* (SPRINT algorithm)	PWV Masurement	PC link	Bluetooth [®] connectivity	Spe End-stage	cial patie Diabetes	nt validatio	ons Children
											disease	patients	eclampsia	age 3+
Office 2G	•		•	0		0	•		•	•	•	•	•	•
Office Vascular	0	٠		٠	0	0	٠	0	•	٠	٠	٠	٠	•

◎ Optional;

* Automated Office Blood Pressure Measurement

WatchBP O3 Ambulatory

WatchBP	24-hour	AFIB	Central BP	Night-time	Pill-button	PC link	Bluetooth®	Special patient validations					
Device	ambulatory BP detection measurement monitoring	measurement			connectivity	End-stage renal disease	Diabetes patients	Pregnancy & pre- eclampsia	Children age 3+				
O3 2G	•	0	0	٠	•	•	•	•	•	•	•		

◎ Optional;

WatchBP Home

WatchBP	Single	3 Consecutive	AFIB	ESH/AHA/	PC link	Bluetooth®	Special patient validations					
Device	measurement	measurements	detection	BIHS Guidelines embedded		connectivity	End-stage renal disease	Diabetes patients	Pregnancy & pre- eclampsia			
Home	•			•	•		•	•	•			
Home A		•	•	٠	•		•	•				
Home A BT (Bluetooth®)		•	•	•	•	٠	•	•				



WatchBP Office

Guideline-Based professional blood pressure monitors

WatchBP Office



Microlife AFIB technology

Screens for Atrial Fibrillation during blood pressure measurement.

ABI assessment

Fast, easy and reliable simultaneous anklearm blood pressure measurement for screening of peripheral arterial disease.

Double arm measurement

Unique dual-cuff design for assessing inter-arm blood pressure differences.

E Contraction

Central blood pressure measurement

Non-invasive, reliable method based on brachial pulse volume plethysmography (PVP) waveforms.











User-friendly with high reproducibility cuff-based brachial-ankle PWV measurement method to evaluate arterial stiffness.

PC link

Transmit all measurement data to PC via USB connection.

Auscultatory mode

For use in e.g. elderly, obese and those with arrhythmia.

SPRINT algorithm

Enables Automated Office Blood Pressure Measurement including the "SPRINT Algorithm" (5 min countdown time followed by 3 consecutive measurements with a 1 minute interval between each reading).



Available models



WatchBP Office 2G

Accurate automated office blood pressure (AOBP) monitor with flexible measurement schedule options.



WatchBP Office Vascular

Accurate blood pressure and cardiovascular screening monitor with multiple features and easy to use.

WatchBP	3 Consecutive	Double arm	Auscultatory	AFIB	ABI	Central BP	AOBPM*	PWV	PC	Bluetooth®	Spec	ial patier	nt validatio	ns
Device	measurements	measurement	mode	detection	assessment	measurement	(SPRINT algorithm)	Masurement	link	connectivity	End-stage renal disease	Diabetes patients	Pregnancy & pre- eclampsia	Children age 3+
Office (2nd Generation)	•		•	0		0	•		•	•	٠	•	•	•
Office Vascular	0	٠		٠	\odot	0	٠	0	•	٠	٠	٠	•	•

◎ Optional;

* Automated Office Blood Pressure Measurement

WatchBP Office 2G

Professional automated office blood pressure monitor



Flexible measurement schedule.

Possibility to perform (up to 6 cycle measurements) auscultatory blood pressure measurement.

Non-invasive central blood pressure measurement (optional).

Atrial Fibrillation (AF) detection (optional).

 Free WatchBP Analyzer software can be downloaded from the website: https://www.microlife.com/support/software-professional-products



Flexible BPM schedule

Clinical Blood pressure measurement can be done in many ways. Unfortunately, there is no consensus between different hypertension authorities in how blood pressure should be measured in clinical practice. Recommendations differ with respect to the number of measurements needed from 2 -6 measurements but also for the required interval time between measurements varying from 30 seconds to 5 minutes. Currently, several medical societies also plea for the performances of unattended blood pressure measurement. This means that the healthcare professional must activate the blood pressure monitor before leaving the room so that sequential measurements are taken after a certain countdown period.

To help physicians all over the world adhering to these different measurement recommendations Microlife has developed a professional blood pressure monitor with a flexible measurement schedule. With this unique option the professional is free to select the preferred number of measurements, the interval time between measurement, the count-down period and even the way the average blood pressure value is calculated.



Central blood pressure

Central blood pressure is the pressure in the aorta, the largest artery that originates from the heart. Central blood pressure measurement may better correlate with cardiovascular risk than upper arm blood pressure measurement because the aorta is closer to the heart and brain, the most vital organs of the body.



Customisable measurement functions

Customize your ABPM according to your needs with additional, helpful technology features:

- Atrial Fibrillation (AF) detection.
- Central blood pressure measurement.

WatchBP	AFIB	Central BP	Flexible	Auscultatory	Rechargeable	USB	Bluetooth®	WatchBP	Special patient validations					
Office			BPM schedule	mode	battery	connectivity	connectivity	Analyzer	End-stage renal disease	Diabetes patients	Pregnancy & pre- eclampsia	Children age 3+		
Advanced			•	•	•	٠	•	•	•	•	•	•		
AFIB	•		•	•	•	٠	•	٠	•	•	•	•		
Central	•	•	•	•	•	•	•	•	•	•	•	•		

Features overview



WatchBP Office Vascular

Professional automated office blood pressure monitor



- Validated with clinical A/A grade according to the British and Irish Hypertension Society (BIHS), and clinically validated according to AAMI/ ISO standards for many special patient groups including children from the age of 3 and patients with end stage renal disease, diabetes, pregnancy pre-eclampsia and large arm circumference.
- Mean Arterial Pressure (MAP) and Pulse Pressure (PP).
- Rechargeable battery, energy-efficient and environmentally friendly.
- Free WatchBP Analyzer software can be downloaded from the website: https://www.microlife.com/support/software-professional-products



Inter-Arm-Difference (IAD)

Dual-cuff design for simultaneous measurement on both arms to assess the Inter-Arm-Difference (IAD).



Reliable AFIB screening

Screens for Atrial Fibrillation (AF) with high accuracy (sensitivity 98% - specificity 92%) as demonstrated in multiple comparative studies with 12-lead ECG.



ABI assessment (optional)

Fast, easy, and accurate Ankle Brachial Index (ABI) assessment.



Brachial-ankle PWV assessment (optional)

User-friendly with high reproducibility cuff-based brachial-ankle PWV measurement method to evaluate arterial stiffness.



Non-invasive central blood pressure measurement (optional)

Determines blood pressure of the ascending aorta based on Pulse Volume Plethysmography (PVP) waveforms to help in making a reliable diagnosis of cardiovascular risk and hypertension.



Flexible BPM schedule

Enables the physicians to adjust the settings of time intervals and numbers of consecutive measurements to comply with different guidelines.



Sprint algorithm

Enable the physicians to perform automated office blood pressure measurements (AOBPM).



Upgradeable (optional)

Allows on-demand paid upgrades of "ABI" (ABI included) or "PWV" (brachial-ankle pulse wave velocity (baPWV) and central blood pressure indices included).

Features overview

Office Vascular model types	Rechargeable battery	AFIB	IAD	ABI	PWV	CBP	USB connectivity	Bluetooth connectivity	Flexible BPM schedule	WatchBP Analyzer	Sprint Algorithm	End-stage renal disease	Diabetes patients	Pregnancy & pre- eclampsia	Children
Advanced	•	•	٠				•	٠	•	•	•	•	•	٠	•
ABI	•	•	٠	•			•	٠	•	•	•	٠	•	٠	•
PWV	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•



WatchBP

24-hour blood pressure measurement



WatchBP O3



Microlife AFIB technology

Screens for Atrial Fibrillation during blood pressure measurement.



Pill-button

For recording medication intake.



Upgradeable device version

Customize your ABPM according to your needs with additional, helpful technology features.



Night-time measurement

For measuring blood pressure during sleep.





PC link

Transmit all measurement data to PC via USB connection.

Bluetooth[®] connectivity

Results are transferred to smartphone, PC, Hub by Bluetooth.

Available models



WatchBP O3 2G

Professional 24-hour ambulatory blood pressure monitor with upgradeable functions for Atrial Fibrillation detection and central blood pressure measurement.

WatchBP	24-hour	AFIB	Central BP	Night-time	Pill-button	PC link	Bluetooth®	Special patient validations					
Device	ambulatory BP monitoring	detection	measurement	measurement			connectivity	End-stage renal disease	Diabetes patients	Pregnancy & pre- eclampsia	Children age 3+		
O3 (2nd Generation)	•	0	0	•	•	٠	•	•	•	•	٠		

◎ Optional;

WatchBP O3 2G

Professional 24-hour blood pressure monitor



- Pill/Event button for recording medication intake and occurrence of unusual events.
- Reliable AFIB screening (optional).
- Non-invasive central blood pressure measurement (optional).
- ✓ USB and Bluetooth[®] connectivity.
- Free WatchBP Analyzer software can be downloaded from the website:
 https://www.microlife.com/support/software-professional-products



Customisable measurement functions

Customize your ABPM according to your needs with additional, helpful technology features:

- Atrial Fibrillation (AF) detection.
- Central blood pressure measurement.

USB interface



Bluetooth[®] connectivity

Easy to read one page PDF report



Ambulator Measuren	ry Bå	ood Rep	BP Pressure ort	0	3		Pat Nai Sei Agi Daf	ient IC ne : : e of b) irth	HQ Harley C Female 68 07.02.15	luinn 150		Hea Phy Emi Pho Stu	ith fac isician ail ine dy dat	e ility	Quin Dr. 0 Hada 1-23 12.1	zel Clir buinzel by@aby 4-567-8 3.2018	nic
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Actual Av	wake	/ As	leep			_			LA	M	s	\geq	1.	۰.	-		1	Mr Mr
Awake: Asleep:			7~20 h 20~7 h				100					U	Y	V		S		
BP Thres	hold	1				_	1			N.S.							1	Sec. Sec.
24-hr: Day: Night:			130/80 135/85 120/70	nmHg nmHg nmHg				1	M	1	¥.*	Ľ	Y	٩r	V	J		Ś
Readings						-		**-	-		-	1						
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White Co.	at W	fndc	w			-	3	-	1	~	-		-	œ			~	A-100
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Pill/Event button for recording medication intake or to remember certain events.



WatchBP Analyzer

icrolife WatchBP											14	-	
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Features overview

WatchBP	AFIB	Central BP	24-hour	Pill/Event	Silent mode	USB	Bluetooth®	WatchBP	Special patient validations			
03			ABPM	button		connectivity	connectivity	Analyzer	End-stage renal disease	Diabetes patients	Pregnancy & pre- eclampsia	Children age 3+
Standard			•	•	•	•	•	•	•	•	•	•
AFIB	•		٠	٠	•	•	•	٠	٠	•	•	•
AFIB & CBP	•	•	•	•	•	•	•	•	•	•	•	•

WatchBP Home

For the best selfmeasurement of blood pressure at home

WatchBP Home



Microlife AFIB technology Screens for Atrial Fibrillation during

Screens for Afrial Fibrillation during blood pressure measurement.



ESH/AHA/BIHS

guidelines embedded

Helps patients to perform 7-day selfmeasurement according to ESH/AHA/ BIHS guidelines.

Bluetooth[®] connectivity

Results are transferred to smartphone, PC, Hub by Bluetooth.



3 consecutive measurements

For accurate blood pressure measurement and better Atrial Fibrillation (AF) detection.

PC link

Transmit all measurement data to PC via USB connection.



Available models



WatchBP Home

Monitoring hypertension and suitable for use in pregnancy and pre-eclampsia.



WatchBP Home A Monitoring hypertension and Atrial Fibrillation.



WatchBP Home A BT Helps to collect accurate day blood pressure measurements for a good overview of the daily blood pressure pattern.

WatchBP	Single	3 Consecutive	AFIB	ESH/AHA/	PC link	Bluetooth®	Special patient validations			
Device	measurement	measurements	detection	BIHS Guidelines embedded		connectivity	End-stage renal disease	Diabetes patients	Pregnancy & pre- eclampsia	
Home	•			٠	•		•	•	•	
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Home A BT (Bluetooth®)		•	•	•	•	•	•	•		

WatchBP Home







Diagnostic mode

7-day self-measurement program that strictly follows ESH/AHA/BIHS guidelines.

			7 working days at home								
		1	2	3	4	5	6	7			
漛	Morning 06:00 ~ 09:00	V	¥	¥	¥	¥	~	¥			
J	Night 18:00 ~ 21:00	A	¥	¥	¥	¥	¥	¥			

1 measurement = 2 readings

Microlife WatchBP Home, also accurate for use in pregnancy and pre-eclampsia





Usual mode

For single measurement at any time (250 memory).

WatchBP Home A







Diagnostic mode (with AFIB)

7-day self-measurement program that strictly follows ESH/AHA/BIHS guidelines.



Usual mode (with AFIB)

3 consecutive measurements for screening for Atrial Fibrillation (250 memory).

WatchBP Analyzer Home A



WatchBP Home A BT







Diagnostic mode (with AFIB)

7-day self-measurement program that strictly follows ESH/AHA/BIHS guidelines.

USUAL

Usual mode (with AFIB)

3 consecutive measurements for screening for Atrial Fibrillation (250 memory).

How does a connected health solution work?



Blood pressure measurements and AF screening are performed.



Results are transferred to

smartphone, PC or Hub.



By Health care provider



WatchBP Analyzer Home A BT





The healthcare professional receives the data.

WatchBP Cuffs

The cuff is as important as the blood pressure monitor itself. Using the right size cuff helps to prevent erroneous blood pressure measurements.



WatchBP Cuffs

- ✓ Latex-free and PVC-free.
- Solution Washable cuffs available in both nylon and cotton.
- Solution Disposable cuffs available (for single patient use).

WatchBP Disposable cuffs

Upper arm – Single patient use (For WatchBP Office series)



WatchBP Office Cuffs

Upper arm – Soft



Upper arm – Rigid

M-L

With air tube 130 cm for Office AFIB, Office ABI



Cuff connector



For Office series

For Office series

Cuff connector

Ankle – Soft



WatchBP O3 Ambulatory Cuffs

Upper arm - Soft



WatchBP Home Cuffs

Upper arm – Soft



Tube with cuff connector



80 cm tube with cuff connector

Cuff			Ankle cuff				
Size	S	М	M-L	L	L-XL	М	L
Measures (cm)	14-22	22-32	22-42	32-42	32-52	22-32	32-42
Measures (inches)	5.5-8.7	8.7-12.6	8.7-16.5	12.6-16.5	12.6-20.5	8.7-12.6	12.6-16.5

* the L-XL cuff has been validated for use among patients with large arms.



Reference

Microlife validation studies

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