microlife®

A partner for people. For life.

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

Table of contents

Introduction

WatchBP – The Cardiovascular Management Solution 1

Advantages of WatchBP

- Accuracy and Validations 3
- Special Patient Validations 4
- Early Detection and Prevention 6
- Advanced Measurement Technology 8

WatchBP Features Overview 10

WatchBP Office

WatchBP Office Vascular 14

WatchBP Office 2G 16

WatchBP Office ABI 18

WatchBP Office AFIB 20

WatchBP 03

WatchBP O3 2G 24

WatchBP O3 Ambulatory/AFIB 26

WatchBP Home

WatchBP Home A BT 30

WatchBP Home A 31

WatchBP Home 32

WatchBP Home S 33

WatchBP Cuffs

WatchBP Cuffs 34

WatchBP Software

WatchBP Analyzer (2G) 38

Reference

Reference 40

microlife®

WatchBP

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

Clinical blood pressure measurement has limited accuracy because of:

- Blood 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.

AFIB

AFIB Detection (Microlife Technology)

ESH Protocol Embedded

Protocol Embedded

AHA Protocol Embedded

Protocol Embedded

BIHS Protocol Embedded

Protocol Embedded

microlife

Product overview

WatchBP Products

Office Blood Pressure Measurement

WatchBP Office Vascular

WatchBP Office 2G

WatchBP Office ABI

WatchBP Office AFIB

Ambulatory Blood Pressure Measurement

WatchBP O3 2G

WatchBP O3 AFIB

WatchBP O3 Ambulatory

Self-Measurement of Blood Pressure at Home

WatchBP Home A BT

WatchBP Home A

WatchBP Home

WatchBP Home S

Accuracy and validations

Clinically validated blood pressure monitors

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

Clinical devices

WatchBP Device	Validation protocol		Circumstance
	BIHS	AAMI / ISO / ESH	
Office Vascular	A/A	Pass	At rest/ L-XL Size cuff /children >3 year
Office 2G		Pass	At rest/ L-XL Size cuff /children >3 year
Office ABI	A/A	Pass	At rest/ L-XL Size cuff /children >3 year
Office AFIB	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 Device	Validation protocol		Circumstance
	BIHS	AAMI / ISO / ESH	
O3 2G		Pass	At rest/ L-XL Size cuff /children >3 year
O3 AFIB		Pass	At rest/ L-XL Size cuff /children >3 year
O3 Ambulatory		Pass	At rest/ L-XL Size cuff /children >3 year

Self-measurement devices

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

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

microlife®

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 arteries						Very low BP values		Cuff fit		AF*
	ESRD*	Diabetes	Elderly	Dialysis	Pre-eclampsia	Pregnancy alone	Hypotension	Children & adolescents	Obesity	Cuff wide-range	
Microlife	●	●	●	●	●	●	●	●	●	●	●

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

Accurate measurement for End Stage Renal Disease

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.

Available models:

WatchBP Office Vascular
WatchBP Office 2G
WatchBP Office ABI
WatchBP Office AFIB

WatchBP O3 2G
WatchBP O3 AFIB
WatchBP O3 Ambulatory

WatchBP Home A BT
WatchBP Home A
WatchBP Home
WatchBP Home S

Accurate measurement for Pre-eclampsia

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.

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.

Available Models:

WatchBP Office Vascular
WatchBP Office 2G
WatchBP Office ABI
WatchBP Office AFIB
WatchBP O3 2G
WatchBP Home

Accurate measurement for children

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 high-quality 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.

Available models:

WatchBP Office Vascular
WatchBP Office 2G
WatchBP Office ABI
WatchBP Office AFIB
WatchBP O3 2G
WatchBP O3 AFIB
WatchBP O3 Ambulatory
WatchBP Home

Accurate measurement for diabetes patients

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.

Available models:

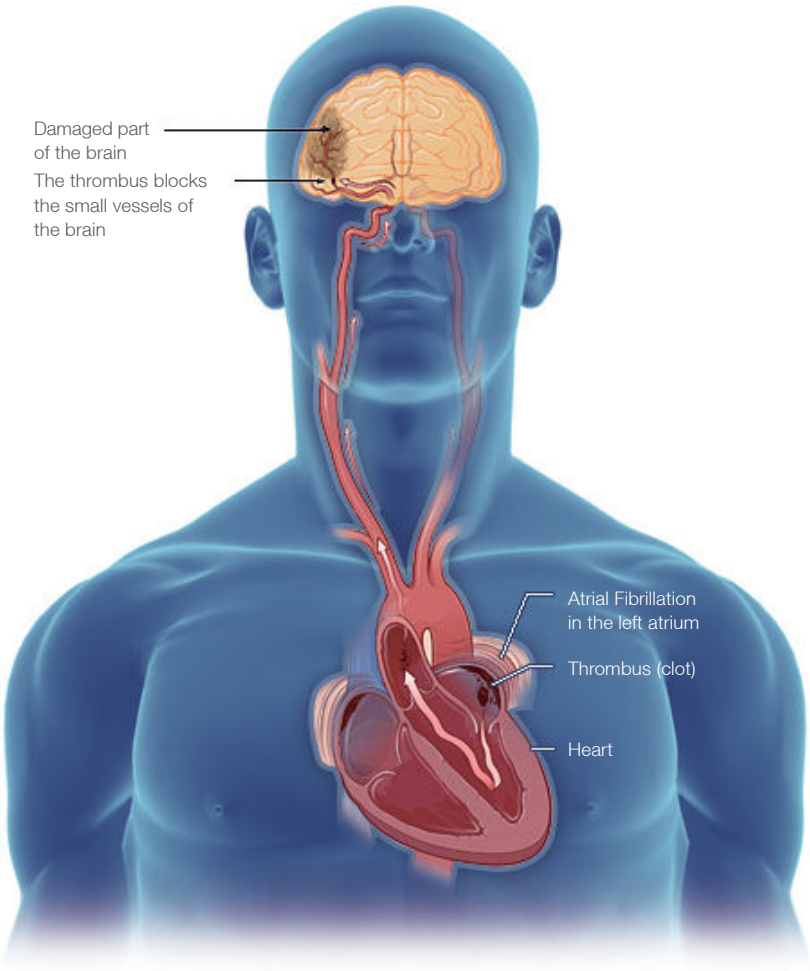
WatchBP Office Vascular
WatchBP Office 2G
WatchBP Office ABI
WatchBP Office AFIB
WatchBP O3 2G
WatchBP O3 AFIB
WatchBP O3 Ambulatory
WatchBP Home A BT
WatchBP Home A
WatchBP Home
WatchBP Home S

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

AFIB

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%.



Stroke due to Atrial Fibrillation

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.

Best clinical practice

A symbol appears on the LCD screen when AF is detected.

"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.

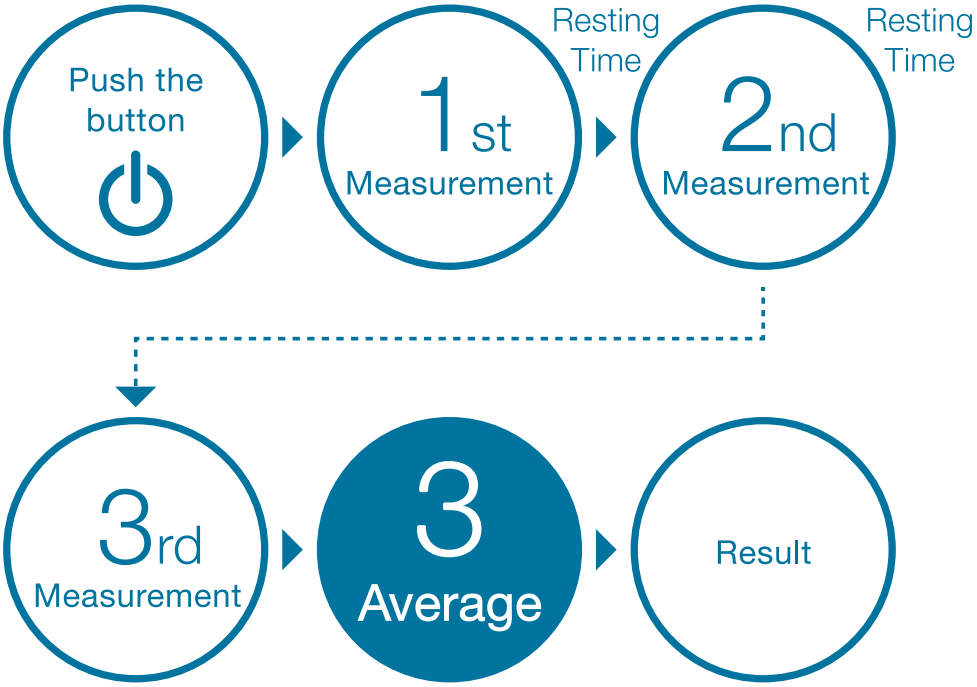
microlife

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.

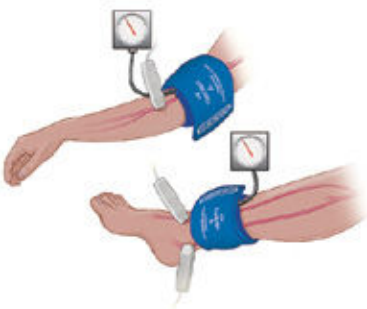
Efficient screening for Peripheral Arterial Disease (PAD)

WatchBP monitors with Ankle Brachial Index (ABI) assessment system

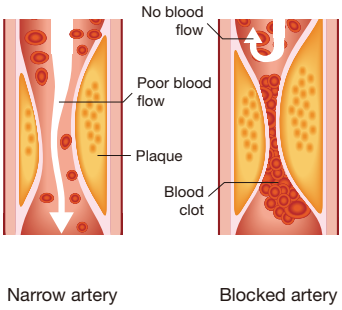
WatchBP Office ABI monitors help physicians to diagnose PAD efficiently by performing ankle-arm blood pressure measurements to assess the Ankle Brachial Index. Accurate and easy to use.

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.

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 ABI is easy, fast and accurate for ABI assessment

microlife®

Features overview

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	Special patient validations			
											End-stage renal disease	Diabetes patients	Pregnancy & pre-eclampsia	Children age 3+
Office Vascular	●	●		●	◎	◎	●	◎	●	●	●	●	●	●
Office 2G	●		●	◎		◎	●		●	●	●	●	●	●
Office ABI	●	●		●	●		●		●		●	●	●	●
Office AFIB	●	●	●	●			●		●		●	●	●	●

◎ Optional;
* Automated Office Blood Pressure Measurement

WatchBP O3 Ambulatory

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

◎ Optional;

WatchBP Home

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

microlife
SCREEN

microlife®

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 ankle-arm blood pressure measurement for screening of peripheral arterial disease.

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

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

Brachial-ankle PWV assessment
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 Vascular

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

WatchBP Offfice 2G

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

WatchBP Office ABI

Cardiovascular screening device. Dual-cuff blood pressure monitor with Atrial Fibrillation detection and Ankle-Brachial Index function.

WatchBP Office AFIB

Dual-cuff blood pressure monitor with Atrial Fibrillation detection and auscultatory measurement function.

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	Special patient validations			
											End-stage renal disease	Diabetes patients	Pregnancy & pre-eclampsia	Children age 3+
Office Vascular	●	●		●	◎	◎	●	◎	●	●	●	●	●	●
Office 2G	●		●	◎		◎	●		●	●	●	●	●	●
Office ABI	●	●		●	●		●		●		●	●	●	●
Office AFIB	●	●	●	●			●		●		●	●	●	●

◎ Optional;
* Automated Office Blood Pressure Measurement

microlife

WatchBP Office Vascular

Professional automated office blood pressure monitor

Double Arm Measurement

AFIB

ABI assessment

baPWV assessment

Central blood pressure measurement

Flexible BPM schedule

SPRINT algorithm

Upgradeable device version

PC link

For use in end stage renal disease

For use in diabetes patients

For use in pregnancy

For use in children

Bluetooth®

- 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 (2G) 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

AFIB

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

MODE.

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 Version” (ABI included) or “PWV Version” (ABI, brachial-ankle pulse wave velocity (baPWV) and central blood pressure included).

Features overview

Office Vascular model types	AFIB	IAD	ABI	PWV	CBP	Flexible BPM schedule	Rechargeable battery	USB connectivity	Bluetooth connectivity	WatchBP Analyzer	Special patient validations			
											End-stage renal disease	Diabetes patients	Pregnancy & pre-eclampsia	Children age 3+
Advanced	●	●				●	●	●	●	●	●	●	●	●
ABI	●	●	●			●	●	●	●	●	●	●	●	●
PWV	●	●	●	●	●	●	●	●	●	●	●	●	●	●

microlife

WatchBP Office 2G

Professional automated office blood pressure monitor

AFIB

Central blood pressure measurement

MODE.

Flexible BPM schedule

3 Average

3 consecutive measurements

SPRINT algorithm

PC link

Upgradeable device version

Auscultatory mode

For use in end stage renal disease

For use in diabetes patients

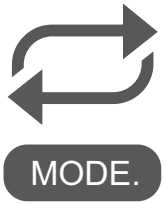
For use in pregnancy

3+ AGES

For use in children

Bluetooth®

- Flexible measurement schedule (up to 6 cycle measurements).
- Possibility to perform auscultatory blood pressure measurement.
- Non-invasive central blood pressure measurement (optional).
- Atrial Fibrillation (AF) detection (optional).
- Free WatchBP Analyzer (2G) 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.

Non-invasive central blood pressure measurement (optional)

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.

Upgradeable (optional)

Allows on-demand paid upgrades of “AFIB version”(AFIB included) or “CBP version” (AFIB and Central BP included).

Features overview

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

microlife

WatchBP Office ABI

Cardiovascular screening device

ABI assessment

AFIB

3 consecutive measurements

Double arm measurement

SPRINT Algorithm

PC link

For use in end stage renal disease

For use in diabetes patients

For use in pregnancy

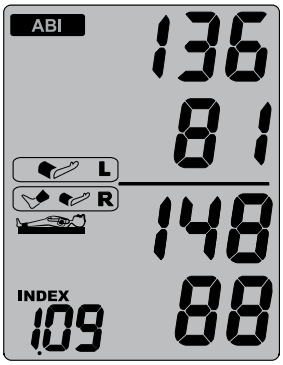
For use in children

- Fast, easy and accurate Ankle Brachial Index (ABI) assessment.
- Atrial Fibrillation (AF) detection.
- Dual-cuff design for simultaneous measurement on both arms to assess the Inter-Arm-Difference (IAD).
- Free WatchBP Analyzer (2G) software can be downloaded from the website: **https://www.microlife.com/support/software-professional-products**

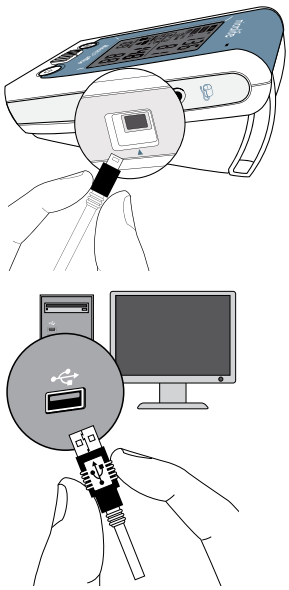
Ankle Brachial Index Assessment: Screening for Peripheral Arterial Disease

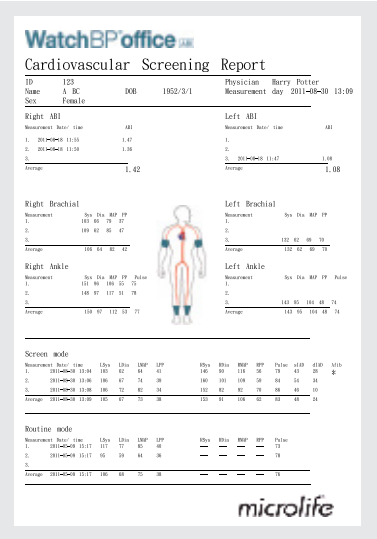
Presentation of the measurement results

On the blood pressure monitor



On the PC





WatchBP office

Cardiovascular Screening Report

ID 123
Name A BC
Sex Female
DOB 1952/3/1
Physician Harry Potter
Measurement day 2011-08-30 13:09

Right ABI

Measurement	Date/ time	ABI
1.	2011-08-30 11:33	1.47
2.	2011-08-30 11:38	1.36
3.		
Average		1.42

Left ABI

Measurement	Date/ time	ABI
1.		
2.		
3.	2011-08-30 11:47	1.08
Average		1.08

Right Brachial

Measurement	Sys	Dia	MAP	PP
1.	103	85	79	37
2.	109	82	85	47
3.				
Average	106	84	82	42

Left Brachial

Measurement	Sys	Dia	MAP	PP
1.				
2.				
3.	132	82	99	70
Average	132	82	99	70

Right Ankle

Measurement	Sys	Dia	MAP	PP	Pulse
1.	151	96	109	55	75
2.					
3.	148	97	117	51	78
Average	150	97	112	53	77

Left Ankle

Measurement	Sys	Dia	MAP	PP	Pulse
1.					
2.					
3.	143	95	104	48	74
Average	143	95	104	48	74

Screen mode

Measurement	Date/ time	LSys	LDia	LMAP	LPP	RSys	RDia	RMAP	RPP	Pulse	aLID	dLID	Alib
1.	2011-08-30 13:04	183	82	84	41	140	90	114	50	79	43	28	g
2.	2011-08-30 13:06	186	67	74	39	100	103	108	50	84	34	34	
3.	2011-08-30 13:08	196	72	82	34	132	82	92	79	88	46	10	
Average	2011-08-30 13:00	185	67	79	38	133	81	108	62	83	40	24	

Routine mode

Measurement	Date/ time	LSys	LDia	LMAP	LPP	RSys	RDia	RMAP	RPP	Pulse
1.	2011-08-30 15:17	117	77	85	48	—	—	—	—	73
2.	2011-08-30 15:17	95	59	84	36	—	—	—	—	78
3.										
Average	2011-08-30 15:17	106	68	75	38	—	—	—	—	76

microlife

Operation mode

Mode	Measurements	Interval time	ABI assessment	AFIB	Double arm measurement	PC link
ABI	1		●			●
Routine	3	15” Default 30”/45”/60”/300” Selectable		●		●
Screen	3	15” Default 30”/45”/60”/300” Selectable		●	●	●

microlife

WatchBP Office AFIB

Professional office blood pressure monitor

AFIB

3 consecutive Measurements

Double Arm Measurement

Auscultatory Mode

SPRINT Algorithm

PC Link

For use in end stage renal disease

For use in Diabetes patients

For use in Pregnancy

For use in Children

- Atrial Fibrillation (AF) detection.
- Dual-cuff design for simultaneous measurement on both arms to assess the Inter-Arm Difference (IAD).
- Auscultatory mode, for use in the elderly, the obese, and those with arrhythmia.
- Free WatchBP Analyzer (2G) software can be downloaded from the website: **https://www.microlife.com/support/software-professional-products**

AFIB

Atrial Fibrillation detection

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

The most reliable Tool for determining Inter-arm blood pressure differences

Inter-arm difference (IAD) in blood pressure is an important cardiovascular risk predictor. Therefore, blood pressure must be measured in both arms at the first clinical visit.

IAD Threshold	
Systolic ≧ 20mmHg	Diastolic ≧ 10mmHg

For use in diabetes patients

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

For use in children

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

Operation mode

Mode	Measurements	Interval time	AFIB	Double arm measurement	PC link
Routine	3	15” Default 30”/45”/60”/300” Selectable	●		●
Auscult.	1				
Screen	3	15” Default 30”/45”/60”/300” Selectable	●	●	●

microlife®

WatchBP O3

24-hour blood pressure measurement

WatchBP O3

Microlife AFIB technology
Screens for Atrial Fibrillation during blood pressure measurement.

Night-time measurement
For measuring blood pressure during sleep.

Pill button
Pill/event button for recording medication intake and/or events.

PC link
Transmit all measurement data to PC via USB connection.

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

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 O3 AFIB

24-hour ambulatory blood pressure monitor with atrial fibrillation detection.

WatchBP O3 Ambulatory

24-hour ambulatory blood pressure monitor.

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

◎ Optional;

microlife

WatchBP O3 2G

Professional 24-hour blood pressure monitor

AFIB

24-hour ABPM

Central blood pressure measurement

Pill button

Upgradeable device version

PC link

For use in end stage renal disease

For use in diabetes patients

For use in pregnancy

3+ AGES

For use in children

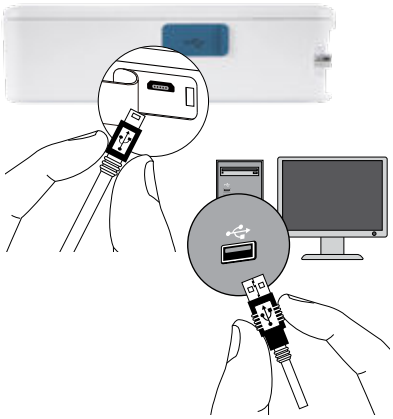
Bluetooth®

- Pill button for recording medication intake and/or events.
- Reliable AFIB screening (optional).
- Non-invasive central blood pressure measurement (optional).
- USB and Bluetooth® connectivity.
- Free WatchBP Analyzer (2G) software can be downloaded from the website: **https://www.microlife.com/support/software-professional-products**

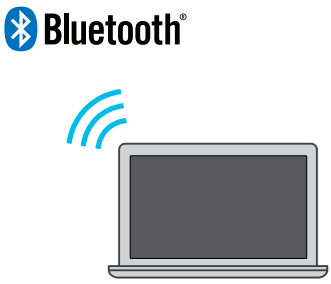
Upgradeable (optional)

Allows on-demand paid upgrades of “AFIB version” (AFIB function included) or“CBP version” (AFIB and Central BP functions included).

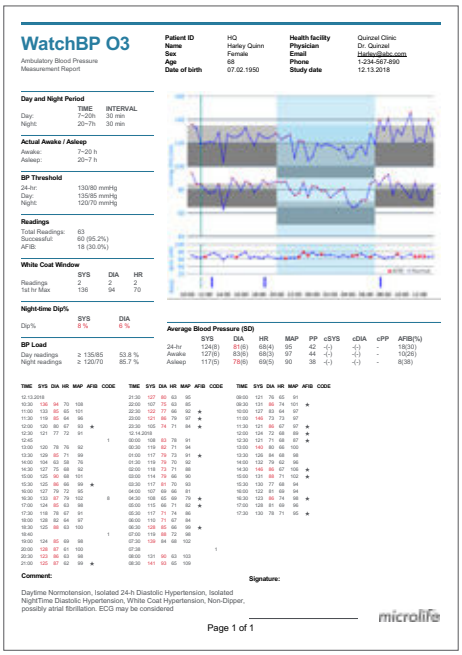
USB interface



Bluetooth® connectivity



Easy to read one page PDF report



WatchBP O3

Ambulatory Blood Pressure Measurement Report

Patient ID	HQ	Health facility	Quinzel Clinic
Name	Harley Quinn	Physician	Dr. Quinzel
Sex	Female	Email	Harley@abc.com
Age	68	Phone	1-234-567-890
Date of birth	07.02.1950	Study date	12.13.2018

Day and Night Period

	TIME	INTERVAL
Day:	7–20h	30 min
Night:	20–7h	30 min

Actual Awake / Asleep

Awake: 7–20 h
Asleep: 20–7 h

BP Threshold

24-hr: 130/80 mmHg
Day: 135/85 mmHg
Night: 120/70 mmHg

Readings

Total Readings: 63
Successful: 60 (95.2%)
AFIB: 18 (30.0%)

White Coat Window

	SYS	DIA	HR
Readings	2	2	2
1st hr Max	136	94	70

Night-time Dip%

	SYS	DIA
Dip%	8 %	6 %

BP Load

Day readings	≥ 135/85	53.8 %
Night readings	≥ 120/70	85.7 %

Average Blood Pressure (SD)

	SYS	DIA	HR	MAP	PP	cSYS	cDIA	cPP	AFIB(%)
24-hr	124(8)	81(6)	68(4)	95	42	-(-)	-(-)	-	18(30)
Awake	127(6)	83(6)	68(3)	97	44	-(-)	-(-)	-	10(26)
Asleep	117(5)	78(6)	69(5)	90	38	-(-)	-(-)	-	8(38)

Comment:

Daytime Normotension, Isolated 24-h Diastolic Hypertension, Isolated NightTime Diastolic Hypertension, White Coat Hypertension, Non-Dipper, possibly atrial fibrillation. ECG may be considered

Signature:

microlife

Page 1 of 1

Pill button

For recording medication intake and/ or events.

WatchBP Analyzer (2G)

Features overview

WatchBP O3	AFIB	Central BP	24-hour ABPM	Pill button	Measurement reminder	USB connectivity	Bluetooth® connectivity	WatchBP Analyzer	Special patient validations			
									End-stage renal disease	Diabetes patients	Pregnancy & pre-eclampsia	Children age 3+
Advanced			●	●	●	●	●	●	●	●	●	●
AFIB	●		●	●	●	●	●	●	●	●	●	●
CBP	●	●	●	●	●	●	●	●	●	●	●	●

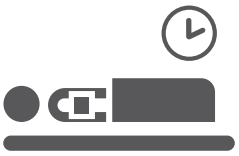
microlife

WatchBP O3 Ambulatory/AFIB

Professional 24-hour blood pressure monitor

AFIB | 24-hour ABPM | Pill button | PC link

- Fully-programmable.
- Lightweight and compact.
- Pill button for recording medication intake and/or events.
- PC connectivity via USB.
- Reports provided in PDF, common data exchange format (.csv file), and also compatible with LibreOffice/OpenOffice software.
- Atrial Fibrillation detection (optional).
- Free WatchBP Analyzer (2G) software can be downloaded from the website: **https://www.microlife.com/support/software-professional-products**

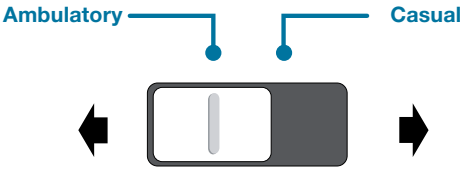


Night-time measurement

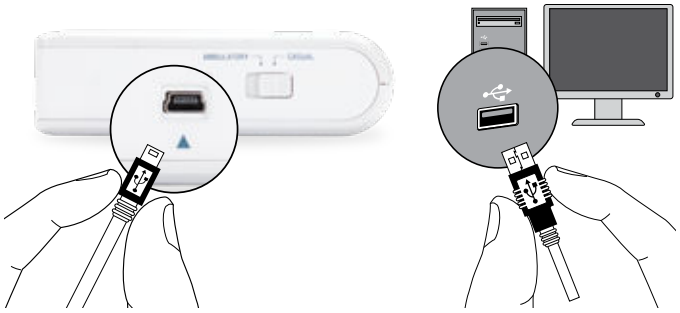
Accurate day and night blood pressure measurements.

- measuring blood pressure during sleep.
- Collects accurate day and night blood pressure measurements for a complete overview of the daily blood pressure pattern.

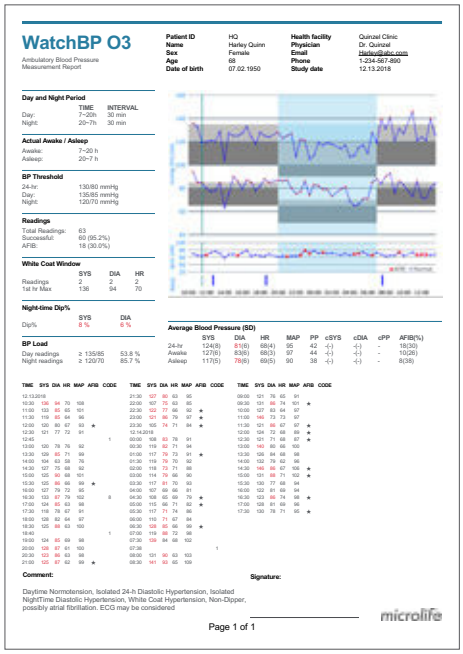
WatchBP O3 validated ambulatory blood pressure monitor



USB interface



Easy to read one page PDF report



WatchBP O3

Ambulatory Blood Pressure Measurement Report

Patient ID	HQ	Health facility	Quinzal Clinic
Name	Harley Quinn	Physician	Dr. Quinzal
Sex	Female	Email	Harley@abc.com
Age	68	Phone	1-234-567-890
Date of birth	07.02.1950	Study date	12.13.2018

Day and Night Period

	TIME	INTERVAL
Day:	7–20h	30 min
Night:	20–7h	30 min

Actual Awake / Asleep

Awake: 7–20 h
Asleep: 20–7 h

BP Threshold

24-hr: 130/80 mmHg
Day: 135/85 mmHg
Night: 120/70 mmHg

Readings

Total Readings: 63
Successful: 60 (95.2%)
AFIB: 18 (30.0%)

White Coat Window

	SYS	DIA	HR
Readings	2	2	2
1st hr Max	136	94	70

Night-time Dip%

	SYS	DIA
Dip%	8 %	6 %

BP Load

Day readings	≥ 135/85	53.8 %
Night readings	≥ 120/70	85.7 %

Average Blood Pressure (SD)

	SYS	DIA	HR	MAP	PP	cSYS	cDIA	cPP	AFIB(%)
24-hr	124(8)	81(8)	68(4)	95	42	-(-)	-(-)	-	18(30)
Awake	127(8)	83(8)	68(3)	97	44	-(-)	-(-)	-	10(26)
Asleep	117(5)	78(8)	69(5)	90	38	-(-)	-(-)	-	8(38)

TIME	SYS	DIA	HR	MAP	AFIB	CODE
12.13.2018						
10:30	136	94	70	108		
11:00	133	85	83	101		
11:30	119	85	64	96		
12:00	130	80	67	93		★
12:30	121	77	72	91		
12:45					1	
13:00	130	78	76	92		
13:30	129	85	71	99		
14:00	104	63	58	76		
14:30	127	75	68	92		
15:00	125	80	68	101		
15:30	125	86	66	99		★
16:00	127	79	72	95		
16:30	133	87	79	102		
17:00	124	85	63	98		
17:30	118	78	67	91		
18:00	128	82	64	97		
18:30	125	88	63	100		
18:40					1	
19:00	124	85	69	98		
20:00	128	87	61	103		
20:30	123	86	63	98		
21:00	125	87	62	99		★
21:30	127	80	63	95		
22:00	127	75	63	85		
22:30	122	77	66	92		★
23:00	121	86	79	97		★
23:30	105	74	71	84		★
12.14.2018						
00:00	108	63	78	91		
00:30	119	62	71	94		
01:00	117	70	73	91		★
01:30	116	76	70	92		
02:00	118	73	71	88		
03:00	114	79	66	90		
03:30	117	81	70	93		
04:00	107	69	66	81		
04:30	108	65	69	79		★
05:00	115	66	71	82		★
05:30	117	71	74	86		
06:00	110	71	67	84		
06:30	128	80	66	99		★
07:00	119	86	72	98		
07:30	139	84	68	102		
07:38					1	
08:00	131	90	63	103		
08:30	141	93	62	109		
09:00	121	76	65	91		
09:30	131	86	74	101		★
10:00	127	83	64	97		
11:00	140	73	73	97		
11:30	121	86	67	97		★
12:00	124	72	68	89		★
12:30	121	71	68	87		★
13:00	140	80	66	100		
13:30	126	84	68	98		
14:00	132	79	62	96		
14:30	146	86	67	106		★
15:00	131	88	71	102		★
15:30	130	77	68	94		
16:00	122	81	69	94		
16:30	123	86	74	98		★
17:00	128	81	68	96		
17:30	130	78	71	95		★

Comment:

Daytime Normotension, Isolated 24-h Diastolic Hypertension, Isolated NightTime Diastolic Hypertension, White Coat Hypertension, Non-Dipper, possibly atrial fibrillation. ECG may be considered

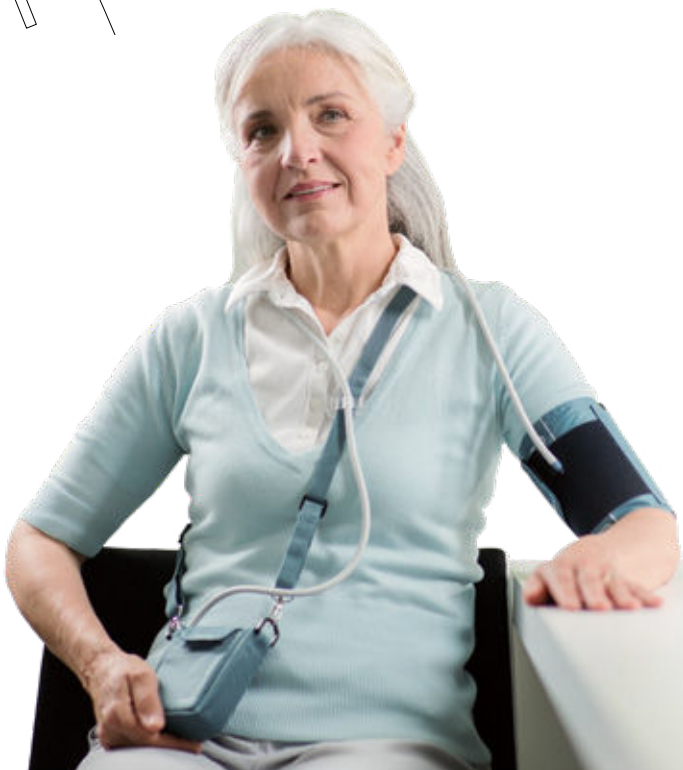
Signature:

Page 1 of 1

microlife

Pill button

For recording medication intake and/or events.



microlife®

WatchBP Home

For the best self-measurement of blood pressure at home

WatchBP Home

Microlife AFIB technology
Screens for Atrial Fibrillation during blood pressure measurement.

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

ESH/AHA/BIHS guidelines embedded
Helps patients to perform 7-day self-measurement according to ESH/AHA/BIHS guidelines.

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 Home A BT

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

WatchBP Home A

Monitoring hypertension and Atrial Fibrillation.

WatchBP Home

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

WatchBP Home S

Simultaneously screening for hypertension and Atrial Fibrillation at home. Animated reminder to warn for risk factors.

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

microlife

WatchBP Home A BT

AFIB

3 Average

Bluetooth®

AFIB

3 consecutive measurements

ESH/AHA/BIHS guidelines embedded

PC link

For use in end stage renal disease

For use in diabetes patients

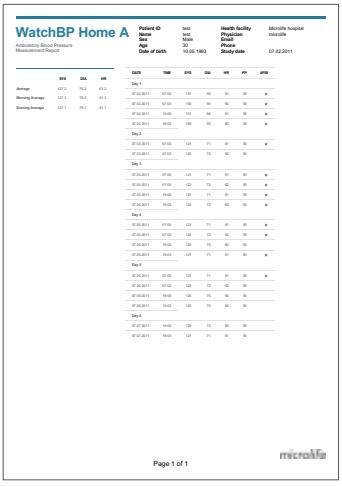
Diagnostic mode (with AFIB)

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 BT


WatchBP Home A

Ambulatory Blood Pressure Measurement Report

Patient ID	test	Health facility	Microlife hospital microlife
Name	test	Physician	
Sex	Male	Group	
Age	30	Phone	
Date of birth	10.05.1983	Study date	07.02.2011

	SYS	DIA	HR
Average	127.2	78.2	81.2
Morning Average	127.3	76.3	81.5
Evening Average	127.1	79.1	81.1

DATE	TIME	SYS	DIA	HR	PP	AFIB
Day 1						
07.02.2011	07:00	151	96	81	55	●
07.02.2011	07:03	150	95	82	55	●
07.02.2011	19:00	151	96	81	55	●
07.02.2011	19:03	150	95	82	55	●
Day 2						
07.03.2011	07:00	123	71	81	52	●
07.03.2011	07:03	120	72	82	50	
Day 3						
07.04.2011	07:00	123	71	81	52	●
07.04.2011	07:03	120	72	82	50	●
07.04.2011	19:00	123	71	81	52	●
07.04.2011	19:03	120	72	82	50	●
Day 4						
07.05.2011	07:00	123	71	81	52	●
07.05.2011	07:03	120	72	82	50	●
07.05.2011	19:00	126	79	80	50	
07.05.2011	19:03	123	71	81	52	●
Day 5						
07.06.2011	07:00	123	71	81	52	●
07.06.2011	07:03	120	72	82	50	
07.06.2011	19:00	126	79	80	50	
07.06.2011	19:03	126	79	80	50	
Day 6						
07.07.2011	19:00	126	79	80	50	
07.07.2011	19:03	123	71	81	52	

Page 1 of 1

microlife

How does a connected health solution work?

Blood pressure measurements and AF screening are performed.

Results are transferred to smartphone, PC or Hub.

The healthcare professional receives the data.

By Microlife

By healthcare provider

WatchBP Home A

AFIB

3 Average

AFIB | 3 consecutive measurements | ESH/AHA/BIHS guidelines embedded | PC link | For use in end stage renal disease | For use in diabetes patients

DIAG.

Diagnostic mode (with AFIB)

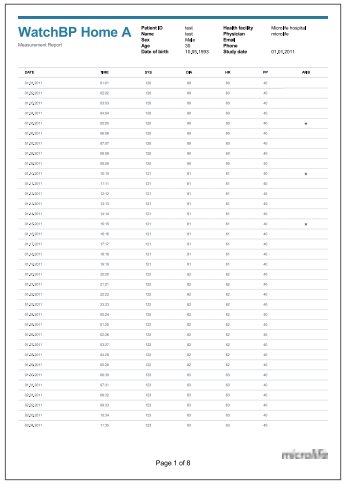
7-day self-measurement program that strictly follows ESH/AHA/BIHS guidelines.

USUAL

Usual mode (with AFIB)

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

WatchBP Analyzer Home A



microlife

WatchBP Home

ESH/AHA/BIHS guidelines embedded

PC link

For use in end stage renal disease

For use in diabetes patients

For use in pregnancy

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
Morning 04:00 ~ 12:00	✗	✓	✓	✓	✓	✓	✓
Night 18:00 ~ 24:00	✗	✓	✓	✓	✓	✓	✓

One measurement cycle includes two measurements.

Usual mode

For single measurement at any time (250 memory).

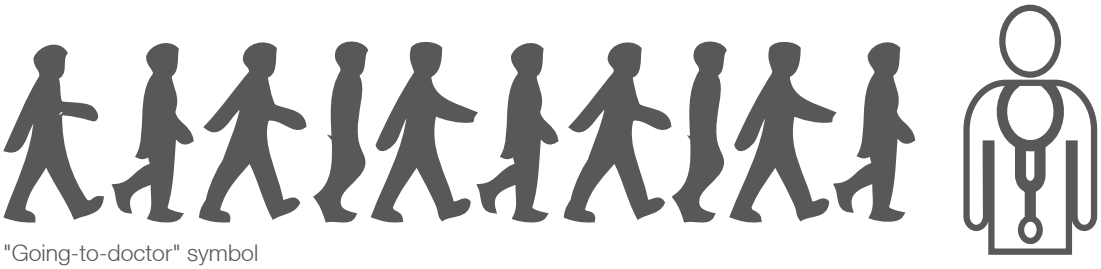
Microlife WatchBP Home, also accurate for use in pregnancy and pre-eclampsia

WatchBP Home S

AFIB | 3 consecutive measurements | For use in end stage renal disease | For use in diabetes patients

Home blood pressure monitor with Atrial Fibrillation detection function

- Measuring blood pressure and screening for Atrial Fibrillation at the same time.
- Easy and reliable automated blood pressure measurement device.
- With "Going-to-doctor" alert to inform a doctor's visit is required because of atrial fibrillation or persistent high blood pressure values.



"Going-to-doctor" symbol

microlife

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 to avoid allergy.
- Washable cuffs available in both nylon and cotton.
- Disposable cuffs available (for single patient use).
- L-XL cuff validated for use with large arms.

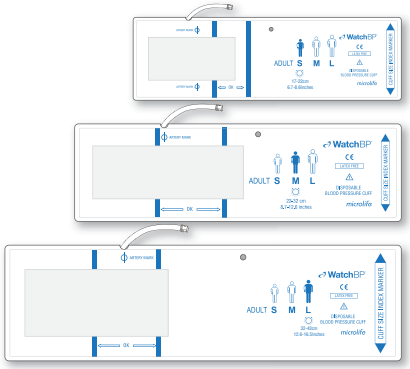
WatchBP Disposable cuffs

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

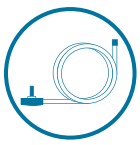
S

M

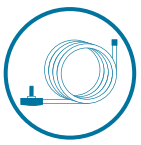
L



Type of tubes with cuff connectors



50 cm / 19.7 in tube with cuff connector



170 cm / 66.9 in tube with cuff connector

Cuff size

Size	S	M	L
Measures (cm)	17-22	22-32	32-42
Measures (inch)	6.7-8.7	8.7-12.6	12.6-16.5

WatchBP Office Cuffs

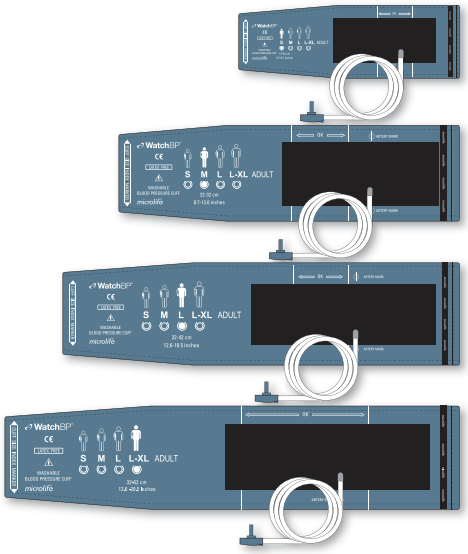
Upper arm – Soft

S

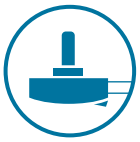
M

L

L-XL



Cuff connector



For all WatchBP Office devices

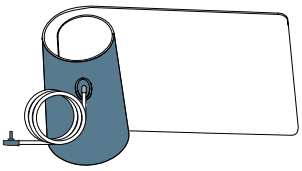
Cuff size

Size	S	M	L	L-XL
Measures (cm)	14-22	22-32	32-42	32-52
Measures (inch)	5.5-8.7	8.7-12.6	12.6-16.5	12.6- 20.5

Upper arm – Rigid

M-L

With air tube 130 cm for Office AFIB, Office ABI



Cuff connector

For Office AFIB, Office ABI

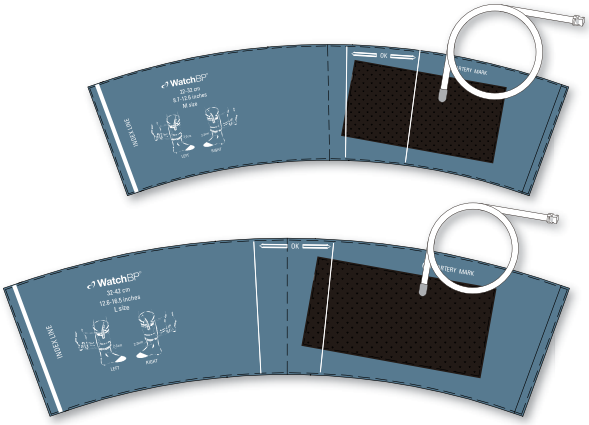
Cuff size

Size	M-L
Measures (cm)	22-42
Measures (inch)	8.7-16.5

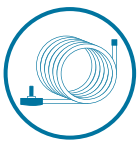
Ankle – Soft

M

L



Tube with ankle cuff connector



170 cm / 66.9 in tube with cuff connector

Cuff size

Size	M	L
Measures (cm)	22-32	32-42
Measures (inch)	8.7-12.6	12.6-16.5

microlife

WatchBP O3 Ambulatory Cuffs

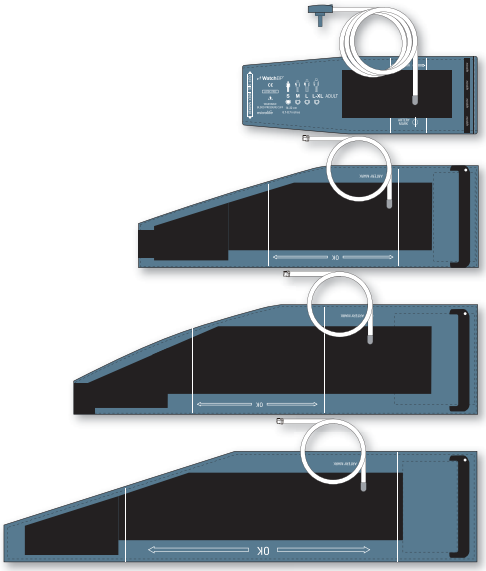
Upper arm – Soft

S

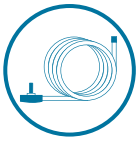
M

L

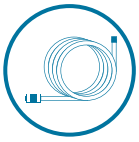
L-XL



Tube with cuff connector



For O3 Ambulatory
100 cm / 39.4 in tube
with plastic connector



For O3 2G
100 cm / 39.4 in tube
with mental connector

Cuff size

Size	S	M	L	L-XL
Measures (cm)	14-22	22-32	32-42	32-52
Measures (inch)	5.5-8.7	8.7-12.6	12.6-16.5	12.6- 20.5

WatchBP Home Cuffs

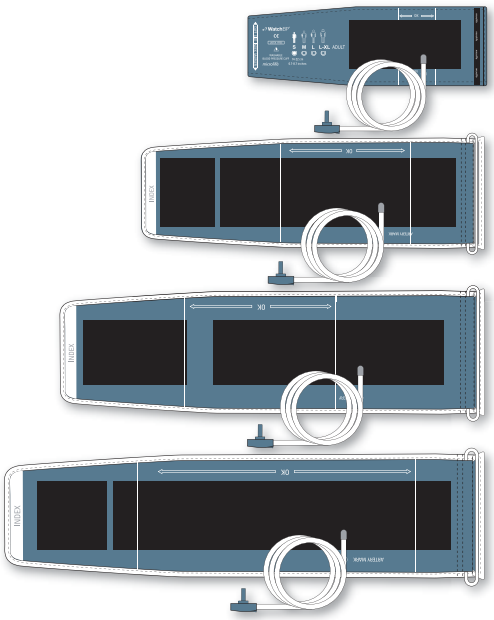
Upper arm – Soft

S

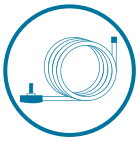
M

L

L-XL



Tube with cuff connector



70 cm / 27.6 in tube
with cuff connector

Cuff size

Size	S	M	L	L-XL
Measures (cm)	17-22	22-32	32-42	32-52
Measures (inch)	6.7-8.7	8.7-12.6	12.6-16.5	12.6- 20.5

LATEX FREE
CUFF SIZE INDEX
ADULT
M
L

microlife

WatchBP Analyzer Software (2G)

Compatible models:

WatchBP Office Vascular
WatchBP Office 2G
WatchBP Office ABI
WatchBP Office AFIB
WatchBP O3 2G
WatchBP O3 AFIB
WatchBP O3 Ambulatory
WatchBP Home A BT
WatchBP Home A
WatchBP Home

WatchBP Office

Hypertension management

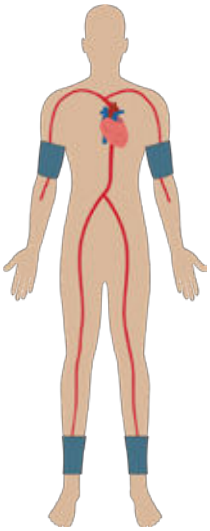
Patient ID	PWVTest	**Health facility**	Microlife hospital
Name	PWV	**Physician**	doctor1
Sex	Male	**Email**	abc@a.b.c
Age	32	**Phone**	123456789
Date of birth	08.27.1991	**Study date**	08.27.2021

Right Arm Average(1)

SYS	DIA	MAP	PP	HR
128	80	99	48	78

Latest measurement

DATE	TIME	SYS	DIA	MAP	PP	HR
08.27.2021	14:04	128	80	99	48	78

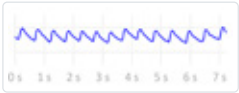


Left Arm Average(2)

SYS	DIA	MAP	PP	HR
126	80	95	47	80

Latest measurement

DATE	TIME	SYS	DIA	MAP	PP	HR
08.27.2021	14:30	123	79	89	44	79



Right Leg Average(1), ABI 1.17, PWV 1499.00 (cm/s)

SYS	DIA	MAP	PP	HR
150	82	102	68	78

Latest measurement

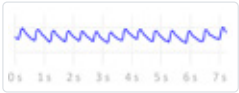
DATE	TIME	SYS	DIA	MAP	PP	HR
08.27.2021	14:04	150	82	102	68	78

Left Leg Average(2), ABI 1.19 PWV 1477.00 (cm/s)

SYS	DIA	MAP	PP	HR
150	78	101	72	80

Latest measurement

DATE	TIME	SYS	DIA	MAP	PP	HR
08.27.2021	14:30	149	76	100	73	79



List of individual readings

Right Arm

DATE	Index Of Cycle	TIME	SYS	DIA	MAP	PP	HR	sIAD	Posture	AFIB
08.27.2021	1	14:04	128	80	99	48	78	-	Supine	-
	-		128	80	99	48	78	-	---	-

Left Arm

DATE	Index Of Cycle	TIME	SYS	DIA	MAP	PP	HR	sIAD	Posture	AFIB
08.27.2021	1	14:29	129	80	100	49	81	-	Supine	-
08.27.2021	2	14:30	123	79	89	44	79	-	Supine	-
	-		126	80	95	47	80	-	---	-

Right Leg

DATE	Index Of Cycle	TIME	SYS	DIA	MAP	PP	HR	sIAD	Posture	ABI
08.27.2021	1	14:04	150	82	102	68	78	-	Supine	1.17
	-		150	82	102	68	78	-	---	-

Left Leg

DATE	Index Of Cycle	TIME	SYS	DIA	MAP	PP	HR	sIAD	Posture	ABI
08.27.2021	1	14:29	150	79	101	71	81	-	Supine	1.16
08.27.2021	2	14:30	149	76	100	73	79	-	Supine	1.21
	-		150	78	101	72	80	-	---	-

microlife

Page 1 of 1

Free of charge WatchBP Analyzer software to create easy to read one page PDF reports

WatchBP O3

Ambulatory Blood Pressure Measurement Report

Patient ID	harlequin	**Health facility**	Microlife hospital
Name	Harley Quinn	**Physician**	Dr. Quinzel
Sex	Female	**Email**	Harley@abc.com
Age	35	**Phone**	1-234-567-890
Date of birth	07.27.1988	**Study date**	12.13.2018

Day and Night Period

	TIME	INTERVAL
Day:	7 ~ 20h	30 min
Night:	20 ~ 7h	30 min

Actual Awake / Asleep

Awake:	7 ~ 20 h
Asleep:	20 ~ 7 h

BP Threshold

24-hr:	130/80 mmHg
Day:	135/85 mmHg
Night:	120/70 mmHg

Readings

Total Readings:	60
Successful:	60 (100.0%)
AFIB:	18 (30.0%)

White Coat Window

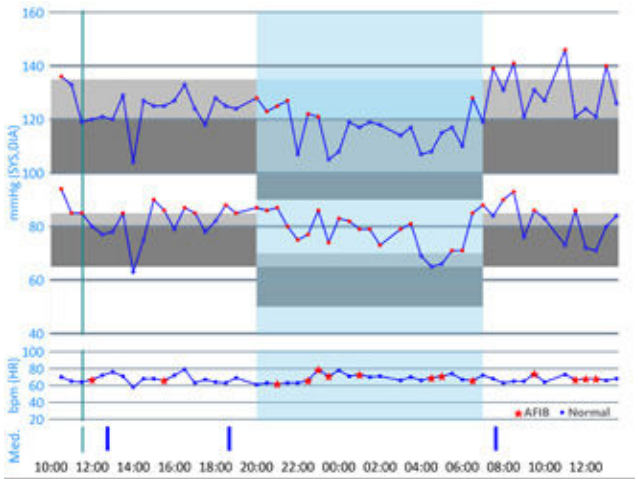
	SYS	DIA	HR
Readings	2	2	2
1st hr Max	136	94	70

Night-time Dip%

	SYS	DIA
Dip%	8%	6%

BP Load

Day readings	≥ 135/85	53.8%
Night readings	≥ 120/70	85.7%



Average Blood Pressure (SD)

	SYS	DIA	HR	MAP	PP	cSYS	cDIA	cPP	AFIB(%)
24-hr	124(8)	81(6)	68(4)	95	42	-(-)	-(-)	-	18(30)
Awake	127(6)	83(6)	68(3)	97	44	-(-)	-(-)	-	10(26)
Asleep	117(5)	78(6)	69(5)	90	38	-(-)	-(-)	-	8(38)

TIME	SYS	DIA	HR	MAP	AFIB	CODE
12.13.2018						
10:30	136	94	70	108		
11:00	133	85	65	101		
11:30	119	85	64	96		
12:00	120	80	67	93	★	
12:30	121	77	72	91		
12:45						1
13:00	120	78	76	92		
13:30	129	85	71	99		
14:00	104	63	58	76		
14:30	127	75	68	92		
15:00	125	90	68	101		
15:30	125	86	66	99	★	
16:00	127	79	72	95		
16:30	133	87	79	102		8
17:00	124	85	63	98		
17:30	118	78	67	91		
18:00	128	82	64	97		
18:30	125	88	63	100		
18:40						1

TIME	SYS	DIA	HR	MAP	AFIB	CODE
19:00	124	85	69	98		
19:30						Er 1
20:00	128	87	61	100		
20:30	123	86	63	98		
21:00	125	87	62	99	★	
21:30	127	80	63	95		
22:00	107	75	63	85		
22:30	122	77	66	92	★	
23:00	121	86	79	97	★	
23:30	105	74	71	84	★	
12.14.2018						
00:00	108	83	78	91		
00:30	119	82	71	94		
01:00	117	79	73	91	★	
01:30	119	79	70	92		
02:00	118	73	71	88		
02:30						Er 2
03:00	114	79	66	90		
03:30	117	81	70	93		
04:00	107	69	66	81		

TIME	SYS	DIA	HR	MAP	AFIB	CODE
04:30	108	65	69	79	★	
05:00	115	66	71	82	★	
05:30	117	71	74	86		
06:00	110	71	67	84		
06:30	128	85	66	99	★	
07:00	119	88	72	98		
07:30	139	84	68	102		
07:38						1
08:00	131	90	63	103		
08:30	141	93	65	109		
09:00	121	76	65	91		
09:30	131	86	74	101	★	
10:00	127	83	64	97		
10:30						Er 2
11:00	146	73	73	97		
11:30	121	86	67	97	★	
12:00	124	72	68	89	★	
12:30	121	71	68	87	★	
13:00	140	80	66	100		
13:30	126	84	68	98		

TIME	SYS	DIA	HR	MAP	AFIB	CODE
14:00	132	79	62	96		
14:30	146	86	67	106	★	
15:00	131	88	71	102	★	
15:30	130	77	68	94		
16:00	122	81	69	94		
16:30	123	86	74	98	★	
17:00	128	81	69	96		
17:30	130	78	71	95	★	

Comment:

Daytime Normotension, Isolated 24-h Diastolic Hypertension, Isolated NightTime Diastolic Hypertension, White Coat Hypertension, Non-Dipper, presence of arrhythmia

Signature:

microlife

Page 1 of 1

Reference

Microlife validation studies

1. Halfon M, et al. Use of oscillometric devices in atrial fibrillation: a comparison of three devices and invasive blood pressure measurement. Blood pressure. 2017:1-8.
2. Bing S, et al. Validation of the Microlife BP A200 Comfort and W2 Slim automated blood pressure monitors in a general adult population according to the European Society of Hypertension and the ANSI/AAMI/ISO 81060-2: 2013 protocols. Blood Press Monit. 2016;21:118-123.
3. Nathan HL, et al. An accurate semiautomated oscillometric blood pressure device for use in pregnancy (including pre-eclampsia) in a low-income and middle-income country population: the Microlife 3AS1-2. Blood Press Monit. 2015;20:52-55.
4. Nathan HL, et al. Accuracy validation of the Microlife 3AS1-2 blood pressure device in a pregnant population with low blood pressure. Blood Press Monit. 2015;20:299-302.
5. Gandolfo C, et al. Validation of a simple method for atrial fibrillation screening in patients with stroke. Neurological sciences : official journal of the Italian Neurological Society and of the Italian Society of Clinical Neurophysiology. 2015;36:1675-1678.
6. Cheng HM, et al. Measurement accuracy of a stand-alone oscillometric central blood pressure monitor: a validation report for Microlife WatchBP Office Central. Am J Hypertens. 2013;26:42-50.
7. Stergiou GS, et al. Accuracy of automated oscillometric blood pressure measurement in patients with atrial fibrillation: 1a.04. Journal of Hypertension. 2011;29:e2.
8. Saladini F, et al. Accuracy of Microlife WatchBP Office ABI monitor assessed according to the 2002 European Society of Hypertension protocol and the British Hypertension Society protocol. Blood Press Monit. 2011;16:258-261.
9. Masiero S, et al. Accuracy of the Microlife large-extra large-sized cuff (32-52 cm) coupled to an automatic oscillometric device. Blood Press Monit. 2011;16:99-102.
10. Kollias A, et al. Automated determination of the ankle-brachial index using an oscillometric blood pressure monitor: validation vs. Doppler measurement and cardiovascular risk factor profile. Hypertens Res. 2011;34:825-830.
11. Stergiou GS, et al. Are there really differences between home and daytime ambulatory blood pressure? Comparison using a novel dual-mode ambulatory and home monitor. J Hum Hypertens. 2010;24:207-212.
12. Ragazzo F, et al. Validation of the Microlife WatchBP O3 device for clinic, home, and ambulatory blood pressure measurement, according to the International Protocol. Blood Press Monit. 2010;15:59-62.
13. Bonso E, et al. Accuracy of a single rigid conical cuff with standard-size bladder coupled to an automatic oscillometric device over a wide range of arm circumferences. Hypertens Res. 2010;33:1186-1191.
14. Palatini P, et al. Validation of Microlife BP W100 wrist device assessed according to the European Society of Hypertension and the British Hypertension Society protocols. Blood Press Monit. 2009;14:41-44.
15. Chung Y, et al. Validation and compliance of a home monitoring device in pregnancy: microlife WatchBP home. Hypertens Pregnancy. 2009;28:348-359.
16. Stergiou GS, et al. Validation of the Microlife Watch BP Office professional device for office blood pressure measurement according to the International protocol. Blood Press Monit. 2008;13:299-303.
17. Palatini P, et al. Validation of the Microlife BP W200-1 wrist device for blood pressure measurement. Blood Press Monit. 2008;13:295-298.
18. Thompson AM, et al. Validation of an oscillometric home blood pressure monitor in an end-stage renal disease population and the effect of arterial stiffness on its accuracy. Blood Press Monit. 2007;12:227-232.
19. Stergiou GS, et al. Validation of the Microlife WatchBP Home device for self home blood pressure measurement according to the International Protocol. Blood Press Monit. 2007;12:185-188.
20. Belghazi J, et al. Validation of four automatic devices for self-measurement of blood pressure according to the International Protocol of the European Society of Hypertension. Vasc Health Risk Manag. 2007;3:389-400.
21. Stergiou GS, et al. Validation of the Microlife BPA100 Plus device for self-home blood pressure measurement according to the International Protocol. Blood Press Monit. 2006;11:157-160.
22. de Greeff A, et al. The Microlife 3AC1: An accurate blood pressure measurement device in pregnancy and pre-eclampsia. J Hypertens 2006;24.
23. Topouchian JA, et al. Validation of two devices for self-measurement of brachial blood pressure according to the International Protocol of the European Society of Hypertension: the SEINEX SE-9400 and the Microlife BP 3AC1-1. Blood Press Monit. 2005;10:325-331.
24. Reinders A, et al. An accurate automated blood pressure device for use in pregnancy and pre-eclampsia: the Microlife 3BTO-A. BJOG. 2005;112:915-920.
25. El Assaad MA, et al. Validation of the Microlife BP 3AC1-1 (R) device for blood pressure measurement according to the International validation Protocol. American Journal of Hypertension. 2003;16:47A-47A.
26. Cuckson AC, et al. Validation of the Microlife BP 3BTO-A oscillometric blood pressure monitoring device according to a modified British Hypertension Society protocol. Blood Press Monit. 2002;7:319-324.

27. Kollias A., et al. Automated pulse wave velocity assessment using a professional oscillometric office blood pressure monitor. J Clin Hypertens. 2020;00:1–7.

28. Palatini P, Fania C, Gasparotti F. Accuracy of the WatchBP Office ABI device for office blood pressure measurement over a wide range of arm sizes. Blood Press Monit. 2018 Apr;23(2):117-119.

Microlife AFIB accuracy and screening studies

1. Wiesel J, et al. Screening for Atrial Fibrillation in Patients >/=65 Years Using an Automatic Blood Pressure Monitor in a Skilled Nursing Facility. Am J Cardiol. 2017;120:1322-1324.
2. Halfon M, et al. Use of oscillometric devices in atrial fibrillation: a comparison of three devices and invasive blood pressure measurement. Blood pressure. 2017:1-8.
3. Chan PH, et al. Diagnostic performance of an automatic blood pressure measurement device, Microlife WatchBP Home A, for atrial fibrillation screening in a real-world primary care setting. BMJ open. 2017;7:e013685.
4. Chan PH, et al. Head-to-Head Comparison of the AliveCor Heart Monitor and Microlife WatchBP Office AFIB for Atrial Fibrillation Screening in a Primary Care Setting. Circulation. 2017;135:110-112.
5. Verberk WJ, et al. Screening for atrial fibrillation with automated blood pressure measurement: Research evidence and practice recommendations. Int J Cardiol. 2016;203:465-473.
6. Twigg MJ, et al. Identification of patients with atrial fibrillation in UK community pharmacy: an evaluation of a new service. Int J Clin Pharm. 2016;38:784-787.
7. Omboni S, et al. Opportunistic screening of atrial fibrillation by automatic blood pressure measurement in the community. BMJ open. 2016;6:e010745.
8. Gandolfo C, et al. Validation of a simple method for atrial fibrillation screening in patients with stroke. Neurological sciences : official journal of the Italian Neurological Society and of the Italian Society of Clinical Neurophysiology. 2015;36:1675-1678.
9. Willits I, et al. WatchBP Home A for opportunistically detecting atrial fibrillation during diagnosis and monitoring of hypertension: a NICE Medical Technology Guidance. Applied health economics and health policy. 2014;12:255-265.
10. Wiesel J, et al. Comparison of the Microlife blood pressure monitor with the Omron blood pressure monitor for detecting atrial fibrillation. Am J Cardiol. 2014;114:1046-1048.
11. Kearley K, et al. Triage tests for identifying atrial fibrillation in primary care: a diagnostic accuracy study comparing single-lead ECG and modified BP monitors. BMJ open. 2014;4:e004565.
12. Wiesel J, et al. Screening for asymptomatic atrial fibrillation while monitoring the blood pressure at home: trial of regular versus irregular pulse for prevention of stroke (TRIPPS 2.0). Am J Cardiol. 2013;111:1598-1601.
13. NICE. WatchBP Home A for opportunistically detecting atrial fibrillation during diagnosis and monitoring of hypertension http://guidance.nice.org.uk/MTG13. 2013;Assessed 18 Aug. 2015.
14. Ermini G, et al. Switching from traditional to automatic sphygmomanometer increases opportunistic detection of atrial fibrillation in hypertensive patients. BJMP. 2013;6:a6161.
15. Verberk WJ, et al. Accuracy of oscillometric blood pressure monitors for the detection of atrial fibrillation: a systematic review. Expert Rev Med Devices. 2012;9:635-640.
16. Stergiou GS, et al. accuracy of automated oscillometric blood pressure measurement in patients with atrial fibrillation: 1A.04. Journal of Hypertension. 2011;29:e2.
17. Wiesel J, et al. Detection of atrial fibrillation using a modified microlife blood pressure monitor. Am J Hypertens. 2009;22:848-852.
18. Stergiou GS, et al. Diagnostic accuracy of a home blood pressure monitor to detect atrial fibrillation. J Hum Hypertens. 2009;23:654-658.
19. Wiesel J, et al. Home monitoring with a modified automatic sphygmomanometer to detect recurrent atrial fibrillation. J Stroke Cerebrovasc Dis. 2007;16:8-13.
20. Wiesel J, et al. The use of a modified sphygmomanometer to detect atrial fibrillation in outpatients. Pacing Clin Electrophysiol. 2004;27:639-643.

Europe / Middle-East / Africa
Microlife AG
Espenstrasse 139
9443 Widnau, Switzerland
Tel: + 41 71 727 7000
Fax: + 41 71 727 7011
watchbp@microlife.ch
www.watchbp.com
www.watchbp.nl

Microlife WatchBP solutions B.V.
Mercator I
Toernooiveld 220
6525 EC Nijmegen
The Netherlands
watchbp@microlife.ch
www.watchbp.nl

United Kingdom
Microlife Health Management Ltd.
St. John's Innovation Centre
Cowley Road, Cambridge CB4 0WS
United Kingdom
Tel: + 44 1223 422 444
Fax: 44 1223 422 444
info@watchbp.co.uk
service@watchbp.co.uk
www.watchbp.co.uk

United States / Canada / Latin America
Microlife USA Inc.,
1617 Gulf to Bay Blvd, 2nd Floor
Clearwater, FL 33755, USA
Tel: +1 727 442 5353
Fax: +1 727 442 5331
msa@microlifeusa.com
www.watchbp.com

Asia
Microlife Corporation
9F, 431, RuiGang Road, NeiHu Taipei, 114,
Taiwan, R.O.C.
Tel: + 886 2 8797 1288
Fax: + 886 2 8797 1283
watchbp@microlife.com.tw
www.watchbp.com

microlife®

For more information, please visit: www.watchbp.com

Microlife Corporation is a global corporation working closely with medical societies, specialists and primary care physicians to create tools and solutions that advance healthcare for the benefit of both physicians and patients.

BROA4_WBP_EN_4323
Issue Date: 2023-10-20