

Prescott Mac Users Group
SIG

Apple Watch & WatchOS 10

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Welcome to Prescott Mac Users Group SIG

Today we will be talking about the Apple Watch and operating system 10.

Outline - Watch Use

- ❖ Watch setup & general use
- ❖ Battery usage & Charging
- ❖ Watch sensors & control
- ❖ Fitness, workouts & mindfulness
- ❖ Sleeping
- ❖ Listening to music, audiobooks or podcasts
- ❖ Reference: Take Control of Apple Watch-4.2

Apple Watch Models

- ❖ Sizes: Ultra 1&2: 49mm; Series 7-9: 41mm & 45mm; Series 4-6: 40mm & 44mm
- ❖ Case of Series 7-9: Aluminum, Stainless Steel; Ultra's are Titanium only
- ❖ Connectivity: GPS or GPS + Cellular
- ❖ **ALWAYS BUY THE GPS + CELLULAR for health reasons!!!**

Note: IF you upgrade to a Stainless Steel case on the Series 9, you will pay only \$50 less than buying the larger, titanium case Ultra 2!!

Apple Watch Series

Series 7-9

Series 4,5,SE1,6,SE2

Series 3



- 352 x 430 (41mm)
- 396 x 484 (45mm)

- 324 x 394 (40mm)
- 368 x 448 (44mm)

- 272 x 340 (38mm)
- 312 x 390 (42mm)

Size of watch refers to the case size from top to bottom. It is helpful to try on a watch before buying, if possible, in order to get the size that fits your wrist, and that you like. The Apple Store will let you try on different watches and bands.

Apple Watch Series

Series 9

SE

Ultra



396 by 484 pixels



368 by 448 pixels



410 by 502 pixels

- 352 x 430 (41mm)
- 396 x 484 (45mm)

- 324 x 394 (40mm)
- 368 x 448 (44mm)

- 410 x 502 (49mm)

Apple Watch Series

Ultra 1&2



• 410 x 502 (49mm)

The Ultra is Apple's top of the line watch. I think of it as a watch for adventurers and explorers.

Apple Watch Series

Accelerometer, Gyroscope, Heart sensor and GPS in Series 1 & 2

❖ Series 3 added:

- ❖ Cellular
- ❖ Altimeter

❖ Series 4 added:

- ❖ Fall detection
- ❖ ECG
- ❖ Digital crown with haptics
- ❖ Larger sized watches

❖ Series 5 added:

- ❖ Always on display
- ❖ Compass
- ❖ SE (Series 5 base)
- ❖ Removed ECG

❖ Series 6 added:

- ❖ Blood O2 sensor
- ❖ U1 Chip
- ❖ Ambient light
- ❖ Series 7 added:
- ❖ Larger display
- ❖ More pixels
- ❖ Brighter
- ❖ Fast charging

SE is the 5 without the ECG or always on display!! I own a Series 6 watch and like it very much. I purchased it because it has the blood oxygen sensor.

Apple Watch Series

❖ Series 8 added:

- ❖ 2 temperature sensors
- ❖ 256-g accelerometer
- ❖ SE 2 (Series 8 base)
- ❖ Removed ECG, Blood O2, temperature sensor & fast charge
- ❖ Same size as SE1
- ❖ Series 9 has no new sensors

❖ Ultra 1 added:

- ❖ Dual frequency Precision GPS
- ❖ Larger brighter display
- ❖ 36 hour battery
- ❖ Depth gage to 40meters
- ❖ Titanium case
- ❖ 86 decibel siren
- ❖ Dual speakers, 3 Mics

Note: ALL Series 9 and Ultra 2's sold after Jan 17 have the Blood OS sensor removed.

SE 1 is the Series 5 and SE 2 is the Series 8, but without the ECG or always on display!!

Italian company Masimo has filed a law suit saying Apple “stole” their Blood O2 sensor and has barred them from importing the watches to the US. So, Apple has removed the sensor from all watches sold after Jan 17, 2024.

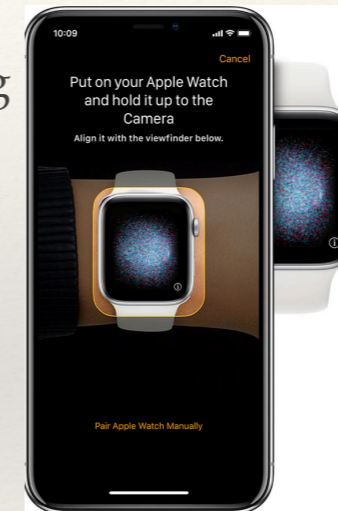
Watches sold before that time still have the Blood O2 sensor! So, wait for this patent dispute to be solved before upgrading to a new watch!

Series Health/Fitness Features

<i>Apple Watch model/health and fitness features</i>	Series 9	8	7	6	SE 2
On-device Siri with Health access	✓	✗	✗	✗	✗
ECG app	✓	✓	✓	✓	✗
Blood Oxygen app	✓	✓	✓	✓	✗
Third-generation optical heart sensor	✓	✓	✓	✓	✗
High/low heart rate notifications	✓	✓	✓	✓	✓
Irregular rhythm notifications	✓	✓	✓	✓	✓
Low cardio fitness notifications	✓	✓	✓	✓	✓
Water resistant to 50m	✓	✓	✓	✓	✓
Sleep tracking with sleep stages	✓	✓	✓	✓	✓
Mental wellbeing	✓	✓	✓	✓	✓
Crash detection	✓	✓	✗	✗	✓
Fall detection	✓	✓	✓	✓	✓
Advanced cycle tracking with temp sensing	✓	✓	✗	✗	✗
Cycle tracking without temp sensing ⁹	✓	✓	✓	✓	✓

Setting Up Watch Using iPhone

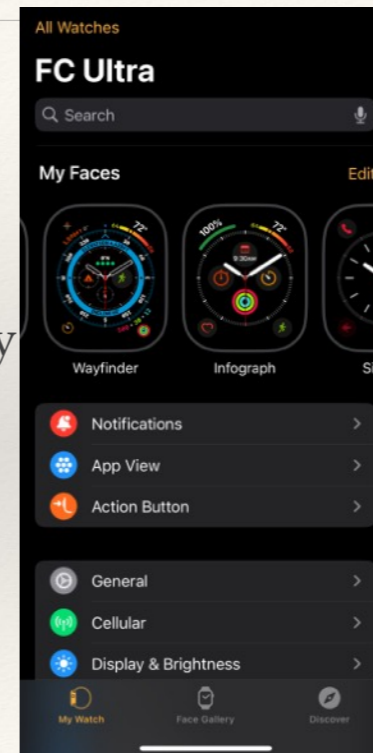
- ❖ Requires an iPhone XR/XS or later running iOS 17 to set up & sync & WatchOS 10+
- ❖ <https://support.apple.com/en-us/HT204505>
- ❖ Cellular watches require add-on charge to phone cellular plan (~\$10/mo)
- ❖ <https://support.apple.com/en-us/HT207578>



I ALWAYS recommend buying the watch with the Cellular option/ability!!!

Setting Up Watch Using iPhone

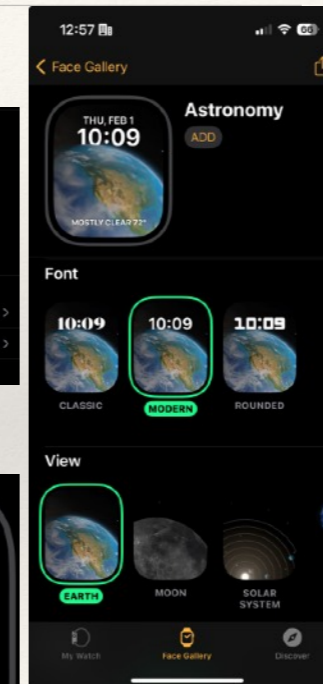
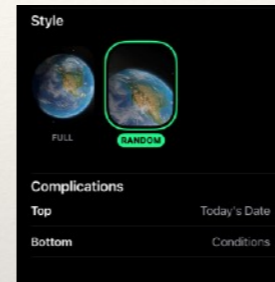
- ❖ Most settings are input from the Apple Watch app on iPhone
- ❖ Create a passcode for the watch - Strongly Recommended
- ❖ Choose the feature settings and apps you want on the watch
- ❖ iPhone now syncs all data with watch



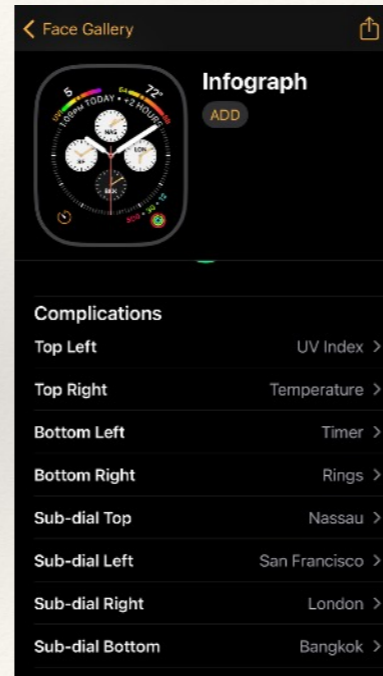
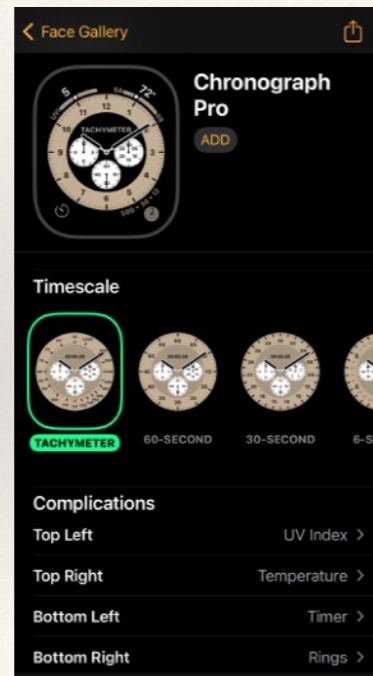
The basic settings for the watch are configured using the iPhone Watch App.

Setting Up Watch Faces Using iPhone

- ❖ Setup Faces & Complications
- ❖ Tap Face Gallery at bottom
- ❖ Choose Face based on looks & # complications
- ❖ Astronomy has two complications, and several Views & Styles
- ❖ Infograph has eight complications, and four Styles



Setting Up Watch Faces Using iPhone



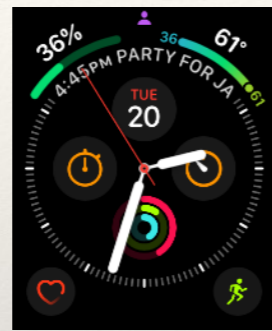
Infograph Complications:

Activity • Alarms • Astronomy • Astronomy • Audiobooks • Battery • Blood Oxygen • Calculator • Calendar • Camera Remote • Cellular • Compass • Compass Waypoints • Contacts • Cycle Tracking • ECG • Find Devices • Find Items • Find People • Heart Rate • Home • Mail • Maps • Medications • Messages • Mindfulness • Monogram • Music • News • Noise • Phone • Podcasts • Reminders • Remote • Shortcuts • Sleep • Stocks • Stopwatch • Time • Timer • Tips • Voice Memos • Walkie-Talkie • Weather • Workout • World Clock

Choose the watch face that is attractive to you, AND has room for the complications you want to monitor!!!

NOTE: not all watches support all the faces!!!

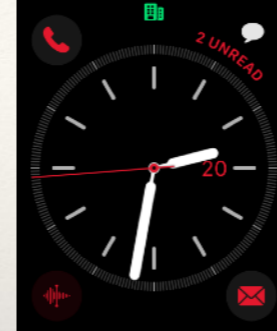
My Watch Faces



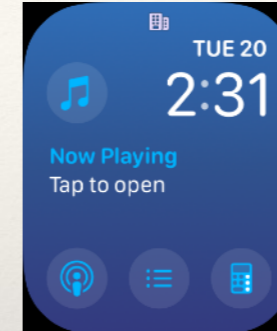
Main



Hiking



Communication



Fun/To Do

- ❖ Frank's: Main, Hiking, Communication, Fun/To Do
- ❖ I am a senior, and my Main face has the Heart complication on it for me to monitor, and my Workout complication to start my workouts

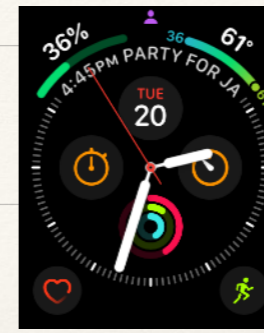
I use 4 faces: Fun/To Do (Music, Now Playing, Podcasts, Reminders, Calculator);

Wayfinder (Elevation, Temperature, Timer, Activity, Date, Last viewed Waypoint, Workout, Compass);

Main (Battery, Temperature, Workout, Heart Rate, Activity Rings, Calendar Schedule, Stopwatch, Timer)

Communication (Phone, Messages, Date, Voice Memos, Mail)

Recommendations



- ❖ At least one watch face that allows 4 complications
- ❖ Recommended Complications
 - ❖ Heart, Rings, Workout
- ❖ Nice to have Complications
 - ❖ Battery, Weather, Date, others

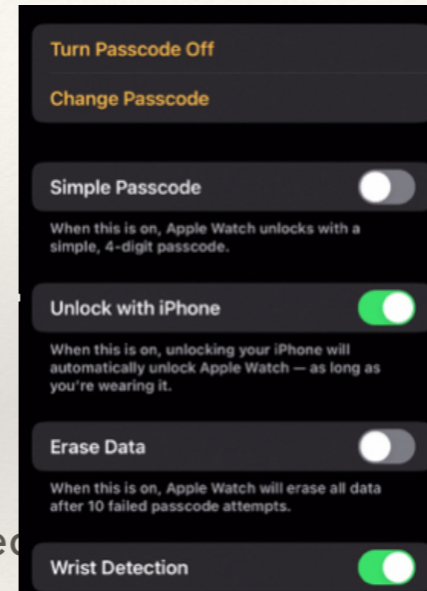
For Seniors, having the heart complication can let you know what the heart is doing.

If you exercise and want to keep track, then having the Workout complication on the main face allows easy access for keeping track.

You really should be trying to close your rings daily. By seeing that at a glance on your main face allows you to get up off your couch or chair to close them.

Apple Watch Security

- Activation Lock: Watch can only be paired with one iPhone at a time
- On your iPhone Watch App:
 - [Passcode](#)>[Simple Passcode](#)>[Off](#)
 - [Unlock with iPhone](#)>[On](#)
 - 6+ digits for Passcode recommended
 - [Passcode](#)>[Turn on Wrist Detection](#)



By turning on Wrist detection, you essentially turn the watch into a black brick if it comes off your wrist, if the thief does not have your passcode, or your iPhone! I usually wear a watch band that is a continuous strap which is harder to get off in crowds and big cities.

Passcode Considerations

- ❖ Guide to iOS estimated passcode cracking times:
- ❖ 4 digits: ~ 6.5 min average, 13 min worst case
- ❖ 6 digits: ~ 11 hrs average, 22 hrs worst case
- ❖ 8 digits: ~ 46 days average, 92 days worst case
- ❖ <https://fossbytes.com/iphone-hacking-graykey-guess-6-digit-passcode-11-hours/>

Security of Health Information

- ❖ When locked with Passcode, all data except Medical ID is encrypted on the iPhone/iPad
- ❖ When locked with Passcode and 2FA, even Apple can not read your data
- ❖ Before downloading new medical/health App and sharing your data, review their App Privacy settings
- ❖ DO NOT give Apps access to camera, microphone, images, videos
- ❖ Review data regularly on [iPhone>Health App>Profile>Apps and Services](#)

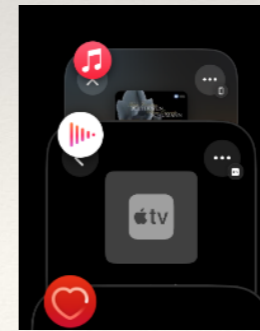
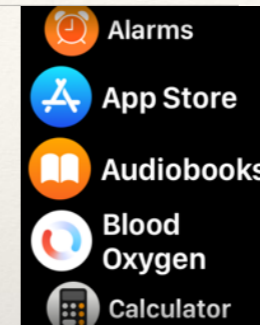
WatchOS 10

- ❖ Completely redesigned the interface
- ❖ Side button and Digital Crown reprogrammed
- ❖ <https://support.apple.com/guide/watch/whats-new-apdb93ea3872/watchos>
- ❖ <https://support.apple.com/guide/watch/welcome/watchos>

Apple Watch is even easier to use thanks to an updated interface that takes full advantage of the Apple Watch display and provides more information at a glance. WatchOS 10 offers redesigned apps, the Smart Stack, and new ways to navigate.

Using the Digital Crown

- ❖ Phone Watch App>App View>List View!!!
- ❖ Single press shows App list or icons
- ❖ Tap & hold on an App allows you to delete an App
- ❖ Double tap opens the App Switcher (all open apps)
- ❖ Scroll through by swiping or Digital Crown
- ❖ Swipe left to remove an App that is frozen



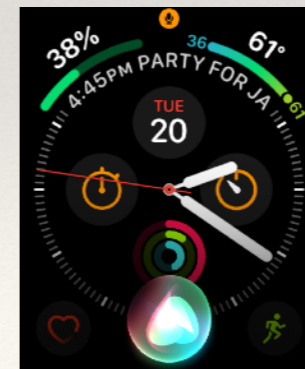
Using the buttons and screen on your watch:

<https://support.apple.com/en-in/105063>

How to Use Apple Watch Digital Crown, Action & Side Buttons: <https://www.iphonelife.com/content/15-ways-to-use-apple-watch-buttons-digital-crown>

Using the Digital Crown

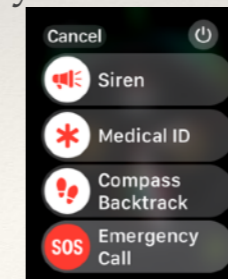
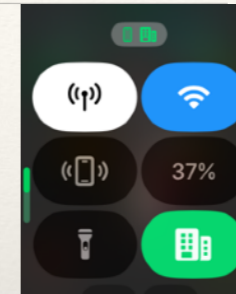
- ❖ [Watch>Siri>Raise to Speak](#) to activate Siri by raising your wrist and speak into the Watch
- ❖ [Watch>Siri>Listen for Siri>On](#) to say Hey Siri or Siri
- ❖ Press & Hold the crown until you see listening indicator, then speak your question/command



Three alternate ways to activate Siri.

Using the Side Button

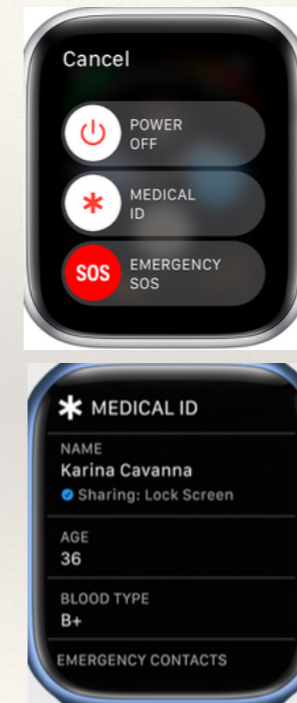
- ❖ Press side button to open Control Center
- ❖ Use crown or a swipe to scroll up or down
- ❖ Press side button twice to access Apple Pay near NFC Reader
- ❖ Press and hold to access Medical ID, Emergency SOS Call, or to turn off (Ultra accesses Siren & Compass Backtrack also)



Only the Ultra watch has the siren feature.

Emergency Medical ID

- ❖ Set up using iPhone
- ❖ Show on Watch without needing a passcode
- ❖ Press & hold side button till you see Medical ID, Emergency Call, etc.
- ❖ Swipe right on Medical ID



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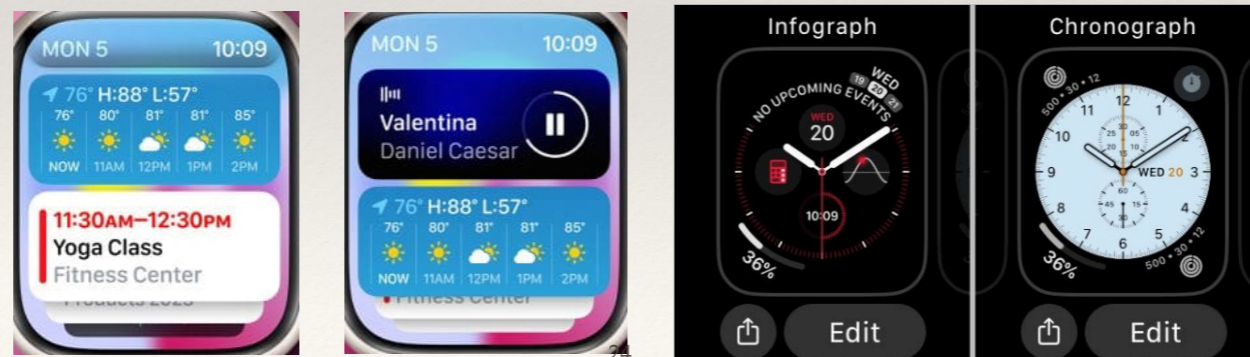
When you set up your Medical ID in the Health app on your iPhone, that information is also available on your Apple Watch. If you share your Medical ID, your Apple Watch can send your medical information to emergency services when you call or text 911 or use Emergency SOS (U.S. and Canada only).

To view your Medical ID on your Apple Watch, follow these steps:

1. Press and hold the side button until the sliders appear.
2. Slide the Medical ID slider to the right.

Using the Watch Face

- ❖ Swipe up to show the Smart Stack - Shows time, date, day of week & widgets (weather, music, calendar, etc)
- ❖ Tap & hold on Smart Stack to edit (add or delete)
- ❖ Tap & hold on watch face to swipe & select or edit the face



The Smart Stack is a set of widgets that uses information such as the time, your location, and your activity to automatically display the most relevant widgets at the appropriate time in your day. For example, at the beginning of the day, Weather will show the forecast or, when you're traveling, the Smart Stack will show boarding passes from Wallet.

To switch faces in WatchOS 10, long press on your current watch face. Then, swipe right or left to see the available faces. Tap on a clock face that you want to set as a default watch face.

Using the Watch Face

- ❖ Red “dot” at top of watch indicates new notifications
- ❖ To view, swipe down from the top on your watch
- ❖ Long press on watch face to change Faces
- ❖ Swipe left or right to choose face then tap to select

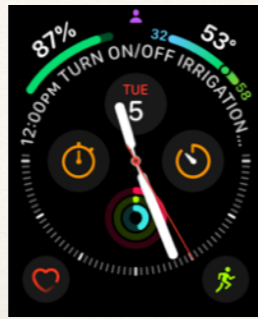
If you have missed a notification, a red dot will appear at top of your watch screen in the center.

Battery & Charging

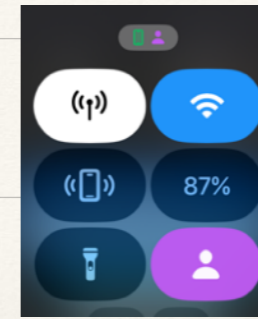
- ❖ When do you not move much? (sleeping, working, watching TV, etc) - CHARGE TIME!
- ❖ Fast charge (½ battery in 1 hour for S3-6); 8 minutes = 8 hours of sleep S7+ with faster charging plug & cable
- ❖ Battery life is ~18 hours S4-S8, ~36 hours Ultra
- ❖ I get almost twice that with my settings

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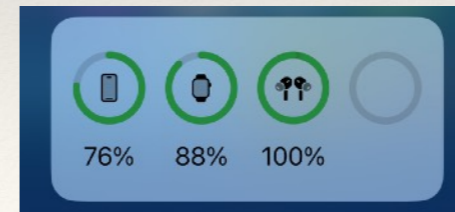
Whenever you are sitting still at home, plug in your watch. If you are always on the go, recommend buying a Watch Charging Battery (https://www.amazon.com/s?k=apple+watch+battery+bank&crd=1TFR5ZZ3ZPW4L&srefix=Apple+watch+batt,aps,206&ref=nb_sb_ss_ts-doa-p_5_16)



Battery & Charging



- ❖ Ways to check your watch battery level:
- ❖ On watch, add battery complication to your watch face
- ❖ Press side button to go to Control Center
- ❖ On iPhone, add widget to look at batteries



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Putting the Battery Complication on your main face so you can monitor it is recommended

Check your battery by pressing side button to look at Control Center

On an iPhone, you can add a battery widget to show the battery percentage of a connected Apple Watch (as well as battery for iPhone, AirPods, etc)

Improve Watch Battery Life

- ❖ On iPhone Watch App:
 - ❖ Use a dark watch face
 - ❖ Reduce Notifications from iPhone Watch App
 - ❖ Turn Off WiFi in Control Center when out of range
 - ❖ Turn off all health tracking: [Watch App>Privacy>Turn all off](#)
 - ❖ In emergencies, turn on Low Power Mode: [Apple Watch Settings>General>Low Power Mode](#) (2x length)

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Push notifications is another battery drain. Turn off as many as possible

You can always in dire straits turn off all the health monitoring: [Apple Watch App> Privacy>Turn all off](#). Remember once you charge the watch to turn all back on.

Low Power Mode turns these features off: Always On display, Heart rate notifications for irregular rhythm, high heart rate, and low heart rate, background heart rate measurements, background blood oxygen measurements, and start workout reminder.

Improve Watch Battery Life

- ❖ On iPhone Watch App:
 - ❖ General>Auto App Install>Off
 - ❖ General>Background App Refresh: Turn off non-essentials
 - ❖ General>Nightstand Mode>Off
 - ❖ Display & Brightness>Brightness> ½ or less:
 - ❖ Display & Brightness> Always On>Off

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The display eats lots of power. The less it is on the better battery you have!!

Or, on Watch:

Settings>Display & Brightness> Turn down & Always On off

Settings>General>Nightstand Mode>On/Off

Improve Watch Battery Life

- ❖ On iPhone Watch App:
 - ❖ Display & Brightness>Wake on Wrist Raise>Off
 - ❖ Display & Brightness> Wake Duration>15 sec
 - ❖ Sounds & Haptics>Alert Volume>lower
 - ❖ Sounds & Haptics>Haptics>default
 - ❖ Noise>Environmental Sound Measurements>Off

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If you turn off Wake on Wrist Raise, you have to hit the face to turn on
NO REASON to have the face on for more than 15 sec.
Louder alerts and Prominent Haptics take more battery

Sensor Considerations

- ❖ Set up using iPhone Health App
- ❖ Band must hold watch secure and “snug”
- ❖ Skin must remain clean: lotion, soap, tattoos, etc
- ❖ Three basic sensors: Accelerometer, Gyroscope & GPS
 - ❖ Track workouts
 - ❖ Steps
 - ❖ Used by Activity Rings



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These three basic sensors are used for all workouts, rings, activity. Accelerometer on Series 4-7 is a 64g basic one. Series 8 and later are 256g so much more sensitive!!

Sensor Considerations

- ❖ Must Calibrate your watch to improve accuracy of distance, pace and calorie measurements
- ❖ [Watch>Settings>Privacy & Security>Location Services>On](#)
- ❖ Scroll down to System Services and turn on Motion Calibration & Distance
- ❖ Go for an outdoor 20 minute walk (Flat terrain!!) with clear unobstructed sky (GPS reception) (Track is best)
- ❖ Select [Workout>Outdoor Walk](#)

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Sensor Considerations



- ❖ Fall detection uses Accelerometer & Gyroscope
- ❖ Automatically enabled for 55 year olds or older
- ❖ Alert sounds and notice appears on watch
- ❖ If no movement in a minute or “I’m OK” message not tapped, then Watch makes ever increasing alert sound and vibrates for 30 seconds
- ❖ Can dismiss the alert without calling up to end of sound

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You can turn the Fall detection on or off:

Open the Watch app on your iPhone, then tap the My Watch tab.

Tap Emergency SOS.

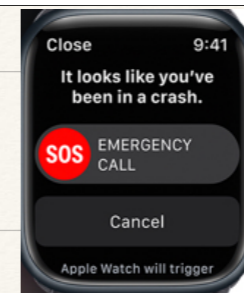
Turn Fall Detection on or off. If Fall Detection is on, you can select Always on or Only on during workouts.

<https://support.apple.com/en-us/108896>

<https://www.webmd.com/healthy-aging/how-to-use-the-apple-watch-fall-detection-feature>

<https://www.forbes.com/health/medical-alert-systems/apple-watch-fall-detection/>

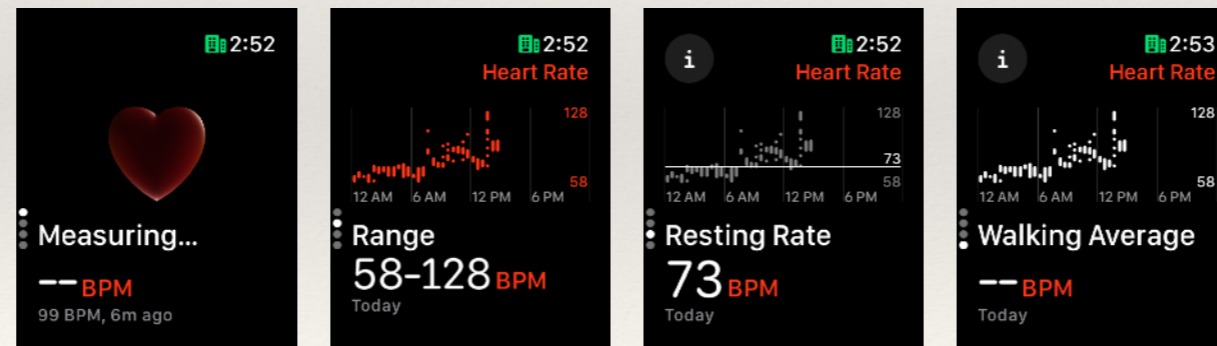
Sensor Considerations Ultra, S8 & SE2



- ❖ Crash detection uses new 256g Accelerometer & Gyroscope - much more sensitive and accurate
- ❖ Watch chimes, taps wrist, displays Emergency Call slider
- ❖ Allows choice of dismissing or calling Emergency
- ❖ If no movement after 30 sec delay, call is made to emergency services & message to emergency contacts with location
- ❖ If Medical ID set up, a slider shown for responders

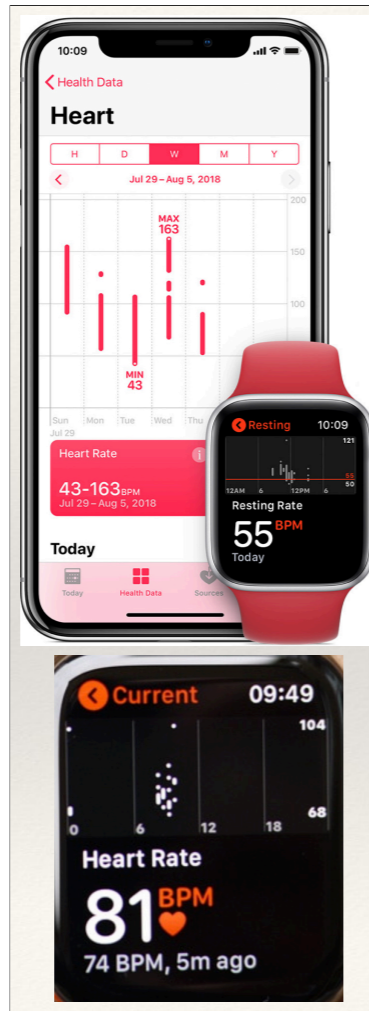
Sensor Considerations

- ❖ Three advanced sensors: Heart Sensor (all series), ECG (S4+), Blood O2 (S6+)*, ECG & Blood missing on SE's
- ❖ Heart rate measures regularly throughout the day



Note: ALL Series 9 and Ultra 2's sold after Jan 17 have the Blood OS sensor removed.

ECG has FDA approval as a health device. While results are not “definitive”, they are suggestive.
Blood O2 does not and is marketed as a “wellness” feature.



Heart Friendly

- ❖ Heart monitor built in, second generation in Series 4-9, Ultras & SEs
- ❖ Summarized in Health App on iPhone
- ❖ Tap Heart icon on watch (complication) to measure now
- ❖ Stanford study with over 400,000 participants to detect atrial fibrillation

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Show Health App: Click on Heart, Scroll down to point out adding Blood Pressure measurements, then click on ECG and show all readings

National Institute on Aging has this information on heart health & aging:

<https://www.nia.nih.gov/health/heart-health/heart-health-and-aging>

Normal Resting Heart Rates by Age: <https://www.verywellhealth.com/resting-heart-rate-by-age-5218932>

Heart Friendly



- ❖ Heart Rate notifications:
- ❖ Inactive for 10 minutes, & heart rate is <40 or >120 get notification
- ❖ AFib if detected by ECG App (manual)
- ❖ If detected, you can track when it occurs
- ❖ Cardiogram, HeartWatch & Zones Apps good Apps

Show Health App: Click on Heart, Scroll down to point out adding Blood Pressure msrmts, then click on ECG and show all readings

Open Cardiogram, show day summaries, scroll to right on msmts under graph to show comparisons with same age individuals

ECG Sensor

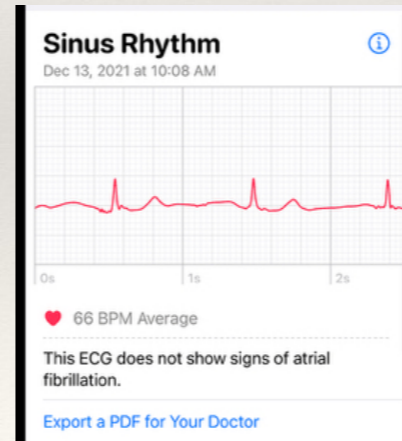
- ❖ Records the timing & strength of the electrical signals that make the heart beat
- ❖ An atrial fibrillation (AFib) measurement indicates time to go to the Doctor for confirmation
- ❖ Not meant for use by those under 22 yr of age
- ❖ Does not detect heart attack!
- ❖ <https://support.apple.com/en-us/HT208955>

The ECG app is FDA Approved and records a one point electrocardiogram which represents the electrical pulses that make your heart beat. The ECG app checks these pulses to get your heart rate and see if the upper and lower chambers of your heart are in rhythm. If they're out of rhythm, that could be AFib.

ECG Sensor



- ❖ Can perform manual ECG measurement
- ❖ ECG App requires finger on crown for 30 seconds



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ECG has FDA approval as a health device. While results are not “definitive”, they are suggestive.

<https://support.apple.com/en-us/HT208955>

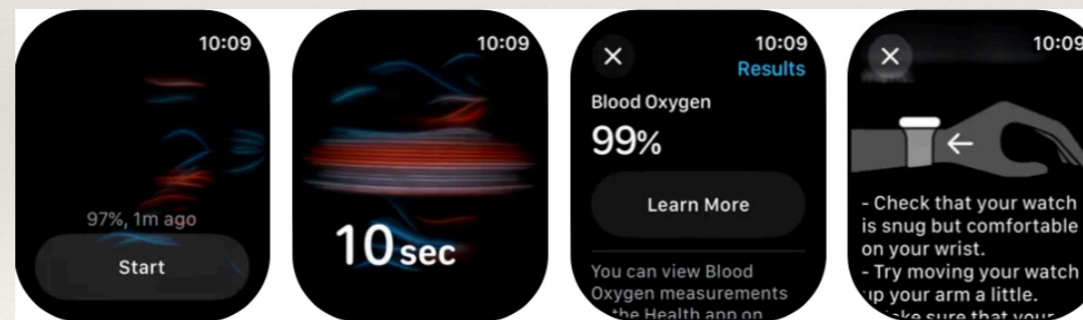
Understanding the ECG output is for professionals.

Tracking AFIB

- You must have a physician diagnosis of AFib.
- Update [your iPhone to the latest version of iOS](#) and [Apple Watch to the latest version of watchOS](#).
- You must wear your Apple Watch at least 12 hours a day for 5 days a week to consistently receive estimates.
- [Heart Rate and Wrist Detection](#) must be enabled on your Apple Watch.
- AFib History is not intended for use by people under 22 years old.
- <https://support.apple.com/en-us/HT212214>

Blood Oxygen Sensor

- ❖ Blood O2 measures in background
- ❖ Blood O2 App can also measure on demand



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Blood O2 is marketed as a “wellness” feature. The Blood Oxygen app can allow you to measure the oxygen level of your blood on-demand directly from your wrist, providing you with insights into your overall wellness.

Your blood oxygen level represents the percentage of oxygen your red blood cells carry from your lungs to the rest of your body. Knowing how well your blood performs this vital task can help you understand your overall wellness.

The majority of people have a blood oxygen level of 95 - 100%. However, some people live a normal life with blood oxygen levels below 95%. Slightly lower values while sleeping are expected, and some users might experience values below 95%.

<https://support.apple.com/en-us/HT211027>

Blood Oxygen Sensor

- ❖ Manual: Rest arm on table or lap, palm flat and down, hold still
- ❖ Band must keep watch snug, flush with top of wrist and wrist bones do not interfere with connection.
- ❖ Needs 15 seconds to get a measurement



Note: ALL Series 9 and Ultra 2's sold after Jan 17 have the Blood OS sensor removed.

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Your blood oxygen level represents the percentage of oxygen your red blood cells carry from your lungs to the rest of your body. Knowing how well your blood performs this vital task can help you understand your overall wellness.

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Elevation can reduce these numbers slightly.

Blood Oxygen Sensor

- ❖ Apple Quote: “Blood Oxygen app measurements are not intended for medical use, including self-diagnosis or consultation with a doctor, and are only designed for general fitness and wellness purposes..”
- ❖ <https://9to5mac.com/2022/10/25/apple-watch-blood-oxygen-study/>

The bias in SpO₂ between the Apple smartwatch and the pulse oximeter was 0.0% for all the data points. The bias for SpO₂ less than 90% was 1.2%. The differences in individual measurements between the smartwatch and oximeter within 6% SpO₂ can be expected for SpO₂ readings 90%–100% and up to 8% for SpO₂ readings less than 90%.” a recent study published in Digital Health open access



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Sensor Considerations Ultra & S8/9

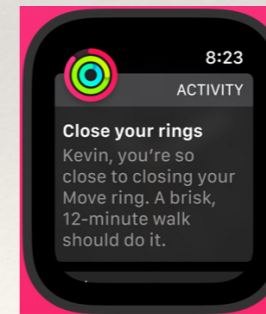
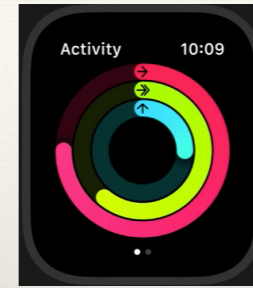
- ❖ Two advanced temperature sensors - one next to skin, one on outside for calibration
- ❖ Allows cycle tracking with retrospective ovulation estimates
- ❖ Geared toward women between puberty and menopause
- ❖ Also used by Ultra when SCUBA diving for water temperature

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ECG has FDA approval as a health device. While results are not “definitive”, they are suggestive.
Blood O2 does not have FDA approval and is marketed as a “wellness” feature.

Fitness: The Activity Rings

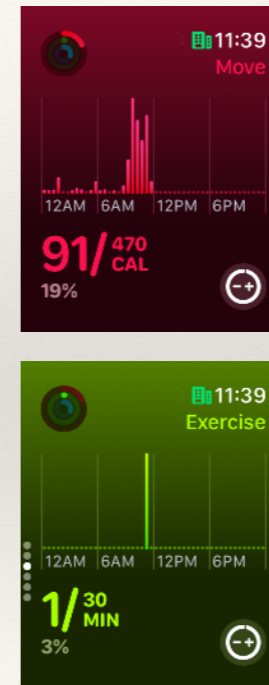
- ❖ Red - Move: tracks & counts active calories burned by moving during the day.
- ❖ Green - Exercise: close by doing activity at or above a brisk walk (70-80% of max). Track using Workout complication.
- ❖ Blue - Stand: get up and move around for 1 minute during 12 different hours in the day



Change move goals: open Activity App on watch, scroll down to ring to change, tap + or - to update to new goal, scroll to next ring

The Activity Rings

- ❖ Open Activity App on watch - Coaching, awards, sharing, competitions on first screen
- ❖ Change goal(s): scroll down to Move ring, tap + or - to change, scroll to move to next ring.
- ❖ Monitor progress using Activity App on iPhone, Activity rings on Watch, or Health App on iPhone/iPad



Change move goals: open Activity App on watch, scroll to bottom, tap “change goals”, tap + or - to update to new goal, click Next to move to next ring

Exercise



- ❖ All doctors agree: you need to exercise your muscles, your heart and your balance as you age
- ❖ It is NEVER too late to begin
- ❖ It makes no difference whether you are doing chair yoga, water fitness, or training for a marathon.
- ❖ If you have not been doing anything, get your doctors suggestion on how to start

https://www.cdc.gov/physicalactivity/basics/older_adults/index.htm

<https://www.nia.nih.gov/health/exercise-and-physical-activity/how-older-adults-can-get-started-exercise>

<https://www.aarp.org/health/conditions-treatments/info-2023/steps-per-day-for-longevity.html>

<https://www.verywellfit.com/how-much-should-seniors-walk-for-optimal-health-8413965>

Exercise

- ❖ CLOSED LOOP ITERATIVE FEEDBACK SYSTEM
- ❖ A process that uses information from past actions to influence future actions
- ❖ Your watch can collect real-time information that you can use to change what you are doing NOW, as well as keep track of changes in your health over time
- ❖ You want to monitor your progress!!

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Closed - looking at watch, phone and you!

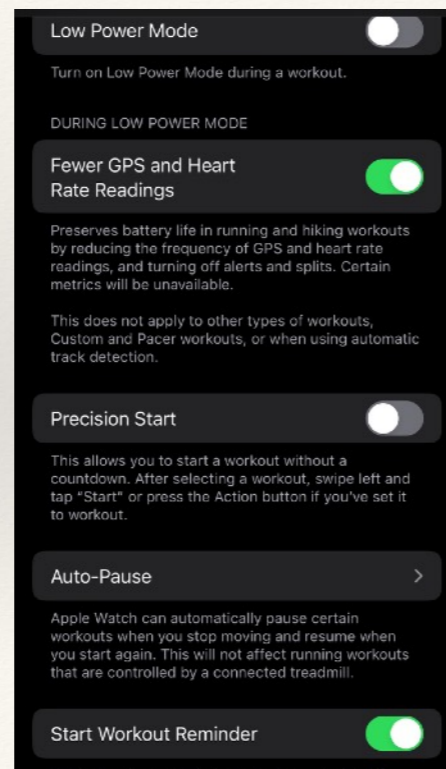
Loop - a circle that collects, monitors what you do

Iterative - it happens many, many times

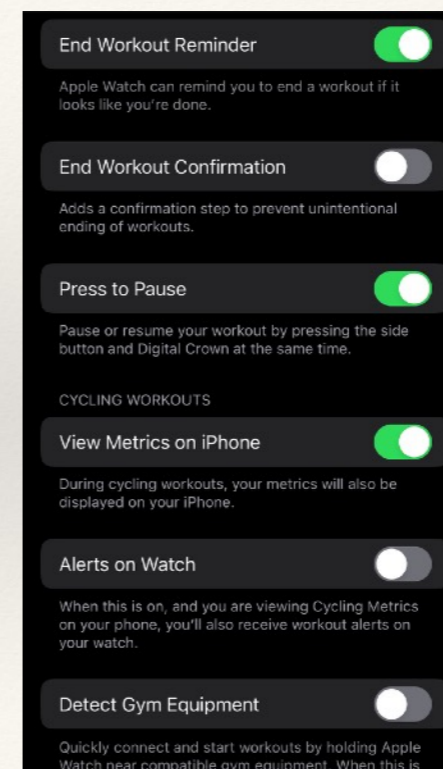
Feedback - collects information about you, to let you change things as needed to achieve goals

<https://www.medigy.com/communities/innovation-lifecycle/contributed-content/feedback-loops-in-healthcare-continuous-patient-monitoring-for-iterative-care/>

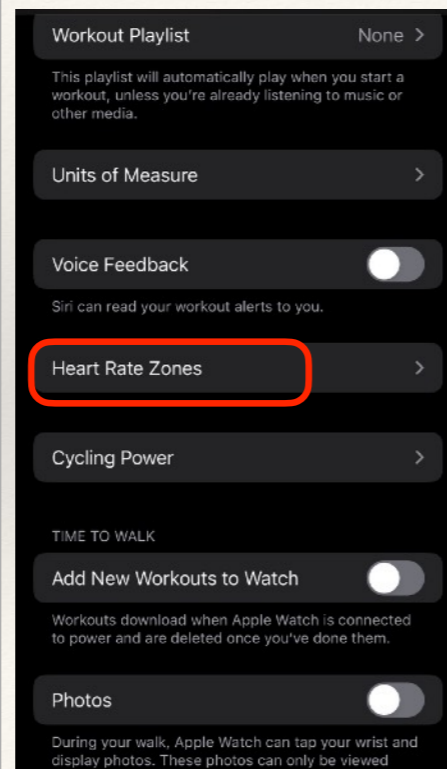
Fitness: Workout Settings



- ❖ iPhone Watch App > Workout
- ❖ Many settings to control workout stats
- ❖ Several pages of settings!



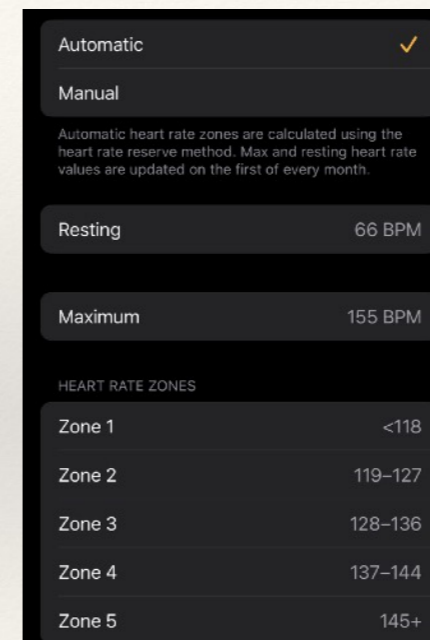
Fitness: Workout Settings



❖ iPhone Watch
App>Workout>
Heart Rate
Zones

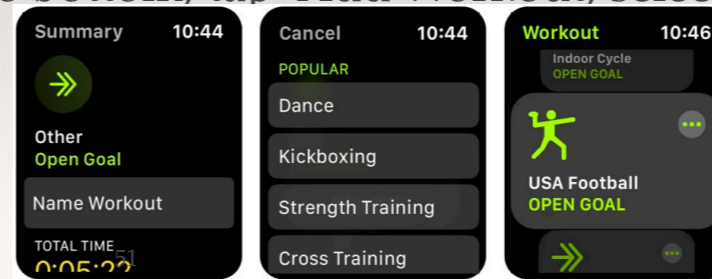
❖ Manual or Auto

❖ Auto based on
Age and resting
heart rate



Workouts

- ❖ Watch Workout App records heart rate, Time, Distance, Calories, etc. using accelerometer & GPS
- ❖ This is great for aerobic workouts
- ❖ Choice of over 80 different workouts
- ❖ Tap on Other, and when done, you get to choose type
- ❖ Or, on Watch, scroll to bottom, tap Add Workout, select your activity



Before you begin, you should at least skim (or read) this publication from CDC:

https://www.cdc.gov/physicalactivity/downloads/growing_stronger.pdf

Everything you wanted to know about tracking workouts: <https://support.apple.com/en-us/HT204523>



Workouts



- ❖ Tap on Workout icon, then tap on type of workout
- ❖ To set goals, tap on 3 dots next to workout name, then on the measurement (time, calories or open) to change
- ❖ Perform your workout.
- ❖ To end (or pause), swipe right, tap End
- ❖ New “Zones” to track intensity
- ❖ New “auto-detect” start & end of workout

Open the Settings app on your Apple Watch. Scroll down to Workout and select this. Switch Start Workout Reminder on. The toggle will become green when it's turned on. To enable End Workout Reminders on your Apple Watch, simply go to Settings > Workout and scroll down to End Workout Reminder. Toggle the feature on when you get here.

Workouts

Aerobic

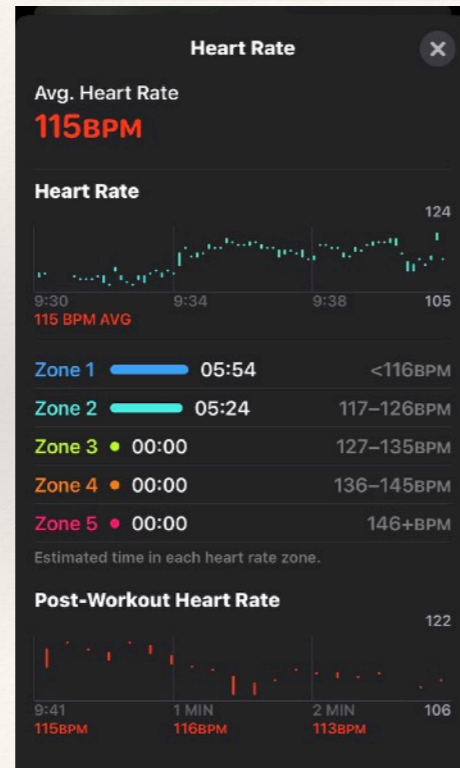
vs

Anaerobic

- ❖ With Oxygen - 60-80% of max heart rate (Zone 1-3)
- ❖ Without Oxygen - >80% of max heart rate (Zone 4 & 5)
- ❖ Helps you loose weight
- ❖ Strengthens bones
- ❖ Activates immune system
- ❖ Burns fat
- ❖ Strengthens heart
- ❖ Builds muscles
- ❖ Boosts mood
- ❖ Increases stamina
- ❖ Zone 1-3 generally
- ❖ Improves Max Performance

Workout Zones

❖ From Workout on iPhone



❖ Workout Zones

❖ Zone 1 <60%

❖ Zone 2 60-70%

❖ Zone 3 70-80%

❖ Zone 4 80-90%

❖ Zone 5 >90%

< Max Heart Rate Formula

211 - (0.64 × age)

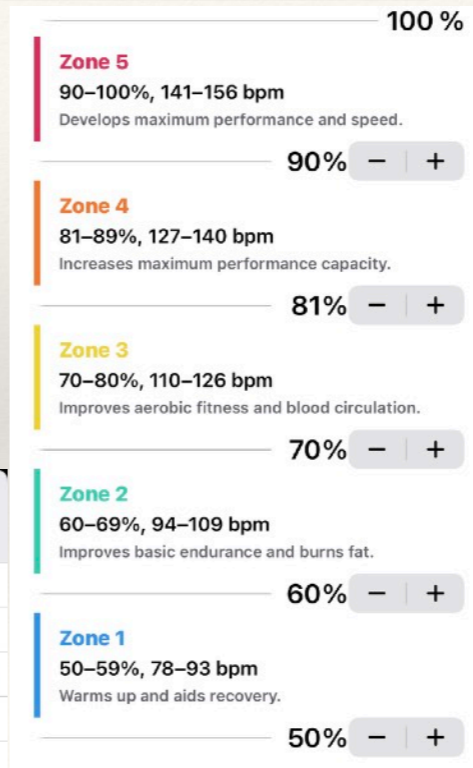
220 - age

208 - (0.7 × age) ✓

205.8 - (0.685 × age)

206 - (0.88 × age) 54

❖ From Zones App on iPhone



To see your zones on the Apple Watch, go to Settings>Workout>Heart Rate then scroll down

<https://www.verywellfit.com/cardio-exercise-guidelines-for-seniors-1230952>

<https://health.clevelandclinic.org/exercise-heart-rate-zones-explained>

<https://www.tomsguide.com/how-to/how-to-use-heart-rate-zones-on-your-apple-watch>

Cardio Recovery (HRR)



- ❖ Measures how much your heart rate decreases after a workout.
- ❖ Stop workout app immediately after stopping exercise and sit for 3 minutes (good time to do Mindfulness...)
- ❖ One guideline is to look for 13 bpm or more drop after 1 min, or 22 bpm or more drop after 2 minutes is a healthy range
- ❖ On Watch, Tap Heart icon, scroll down to “Post-Workout”
- ❖ HRR varies by age and other factors

Cardio Recovery (HRR)

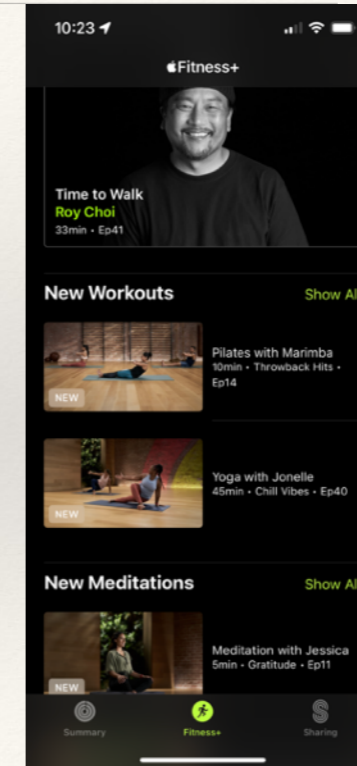


- ❖ Results from Cardiogram App
- ❖ Key is to look for improvement as you do workouts over the weeks / months / years
- ❖ <https://9to5mac.com/2022/09/16/cardio-recovery-apple-watch-iphone/>
- ❖ <https://blog.cardiogr.am/heart-rate-recovery-how-to-track-it-why-its-important-3d82a2d06a43>



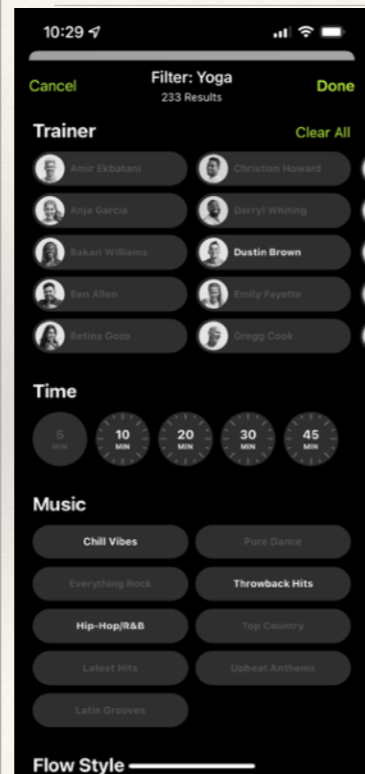
Apple Fitness+

- ❖ Watch integral to all workouts
- ❖ 12 different workout types
- ❖ Different levels & lengths of workouts
- ❖ Watch records real-time metrics
- ❖ New workouts every week
- ❖ Integrated with Apple TV, iPad & iPhone
- ❖ Integrated with Apple Music



Apple Fitness+

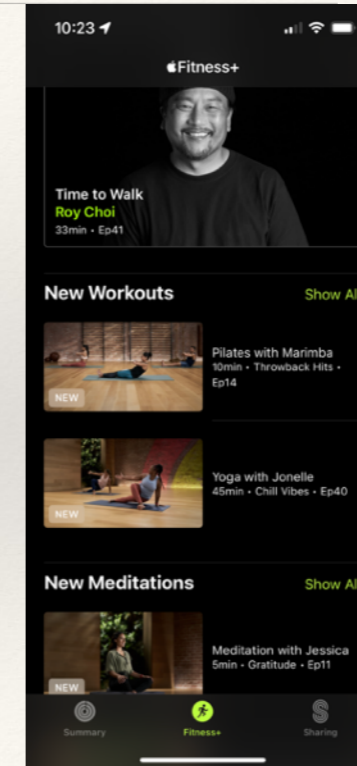
Workout categories include Treadmill Walk, Treadmill Run, HIIT, Rowing, Dance, Cycling, Yoga, Core, Strength, Pilates, Mindful Cooldown, and Guided Meditation, a feature added alongside the launch of [iOS 15](#).





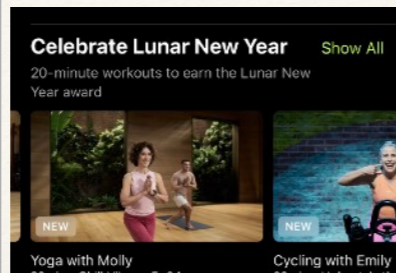
Apple Fitness+

- ❖ Options for Beginners
- ❖ Options for seniors
- ❖ Save on iPhone or iPad for “No WiFi”
- ❖ Each program has own music
- ❖ 5 - 45 minute workouts
- ❖ Each program has 2-3 different intensities shown



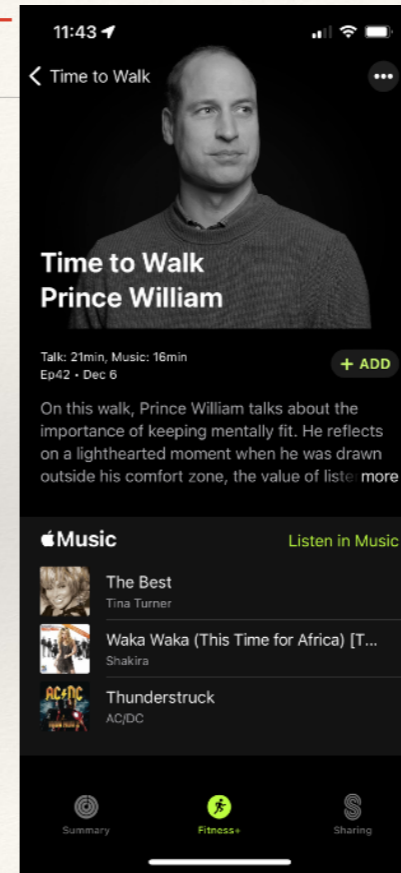
59

You can quit a workout whenever you feel tired, hurt something, do more than you should, etc!!



Apple Fitness+

- ❖ Use Fitness App on iPhone & iPad
- ❖ Apple Watch owners get 1 mo free
- ❖ Monthly subscription: \$9.99
- ❖ Yearly subscription: \$79.99
- ❖ Included with Apple One Monthly subscription of \$37.95 / mo.



“Mindfulness”

- ❖ Mindfulness App has four choices
- ❖ Fitness+ Audio Meditations - 5-20 minute sessions
- ❖ State of Mind - saves state of mind under Mental Wellbeing
- ❖ Reflect: Think about something calming for a period of time (1 min default, 5 min max)
- ❖ Breathe: Monitor your breathing for 1 minute - slow inhale & exhale; Set Breath Rate on iPhone Watch App
- ❖ Last two have nice images on watch to view

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The Mindfulness app on your Apple Watch encourages you to set aside a few minutes a day to focus, center, and connect as you breathe. You can also use State of Mind to reflect on how you're feeling

Sleeping with the Watch



- ❖ Use iPhone or Watch to set Sleep schedule
- ❖ Sleep mode locks screen, dims display and turns off notifications
- ❖ Sleep tracking using iOS 17 & WatchOS 10
- ❖ Getting up at night? Hold Digital Crown to unlock, tap side button to view control center, tap the flashlight (white or red)
- ❖ Review all data on iPhone/iPad or Watch



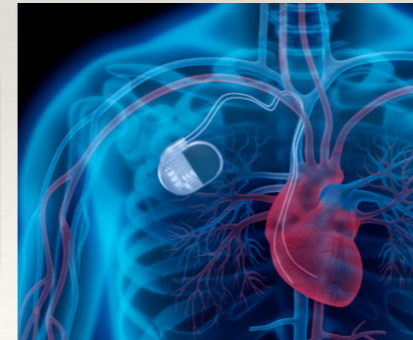
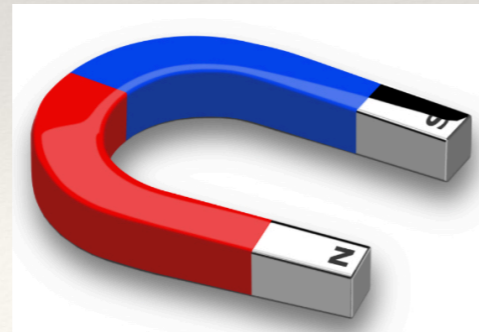
I use 10% of power while wearing watch when I sleep.

<https://support.apple.com/en-us/HT211685> or:

<https://www.guidingtech.com/track-sleep-with-apple-watch/>

Sleeping with the Watch

- ❖ All watches have a magnet in them
- ❖ Apple cautions individuals with pacemakers to keep the watch more than 6" away from it (be aware of how you sleep!!)



Medication Minder

- ❖ Medications > Log as Taken
- ❖ Must have sound and Haptics turned on
- ❖ Must mirror iPhone for Health notifications



Do you remember to take your medications? Morning & evening are easy, but mid-morning, mid-afternoon schedule is harder with all the other things that happen.

<https://support.apple.com/guide/watch/medications-apd3dd24d78b/watchos>

Listening to Material on your Watch

- ❖ Listen to anything on Apple Music or Apple Radio
- ❖ Sync music from your iPhone library to the Apple Watch
- ❖ Listen to Apple Podcasts
- ❖ Listen to Audiobooks you sync from iPhone
- ❖ Requires Bluetooth AirPods synced to watch
- ❖ <https://support.apple.com/en-us/HT204691>

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Add music from iPhone to Apple Watch: <https://support.apple.com/guide/watch/add-music-apd483798d11/watchos>

Play music on Apple Watch: <https://support.apple.com/guide/watch/play-music-apd70768b20b/watchos>

Dementia Study

- ❖ UK Dementia Research Institute at Cardiff University
- ❖ Data from 103,712 smart watch wearers
- ❖ Collected data for 3 years
- ❖ Able to predict developing Parkinson's up to 7 years ahead of symptoms
- ❖ Due to slowing movement, tremors, stiff muscles

One Last Thing...

- ❖ When was the last time you cleaned:
 - ❖ Your Watch?
 - ❖ Your Bands?
- ❖ Turn the watch off, & remove the bands before cleaning
- ❖ Read the link below for complete information
- ❖ <https://support.apple.com/en-us/108893>

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To clean your Apple Watch, follow these steps:

Turn off your Apple Watch and remove it from the charger.

If you have a leather band, remove it from your Apple Watch.

Wipe your Apple Watch clean with a nonabrasive, lint-free cloth. If necessary, lightly dampen the cloth with fresh water. If your Apple Watch has substances or debris visible in places such as the speaker ports, you can hold your Apple Watch under lightly running, warm, fresh water until it's clean. Soaps and other cleaning products shouldn't be used.

Dry your Apple Watch with a nonabrasive, lint-free cloth, including the surface of the back crystal.

You can use a disinfectant if you desire: Using a 70 percent isopropyl alcohol wipe, 75 percent ethyl alcohol wipe, or Clorox Disinfecting Wipes, you may gently wipe the exterior surfaces of your Apple Watch and your Solo Loop, Sport Band, Nike Sport Band, Ocean Band, or metal band. Don't use on fabric or leather bands. Don't use products containing bleach or hydrogen peroxide. Avoid getting moisture in any openings, and don't submerge your Apple Watch in any cleaning agents.

References

- ❖ <https://support.apple.com/en-us/HT204517>
- ❖ <https://support.apple.com/en-us/HT211856>
- ❖ <https://www.cultofmac.com/?s=Cardio+Fitness>
- ❖ <https://support.apple.com/en-us/HT204523>
- ❖ <https://support.apple.com/en-us/HT208931>
- ❖ <https://autosleepapp.tantsissa.com/home>
- ❖ <https://flaskapp.com/zones/help.html>
- ❖ <https://heartwatch4.tantsissa.com>

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- ❖ Healthcare - <https://www.apple.com/healthcare/apple-watch/>
- ❖ Blood O2 - <https://support.apple.com/en-us/HT211027>
- ❖ Workouts - <https://support.apple.com/watch/workout>
- ❖ Zones - <https://www.myhealthyapple.com/complete-guide-to-apple-watch-heart-rate-zones/>
- ❖ Fall Detections - <https://support.apple.com/en-us/HT208944>
- ❖ User Guide - <https://support.apple.com/guide/watch/welcome/watchos>
- ❖ **GREAT Book** - <https://www.takecontrolbooks.com/apple-watch/?cp=M4KP7MM9&pt=TCUPDATE>