Wireless Independence Now

An Overview of Smartphone Accessibility Features

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• Questions for the Group
• What is Accessibility
• iOS and Android Accessibility Features
• Assistive and Accessibility Apps
• Accessibility Resources
Questions for the Group

• What type of phone or tablet do you have?
• What do you like about your device?
• What do you not like about your device?
• How did you choose your device?
Accessibility – what does that mean?

• Wireless accessibility is the ability to access and benefit from mobile phones and tablets.
• Accessibility means that a product, device, service, or environment is available and usable to as many people as possible.
Demonstration of Apple & Android Accessibility Features
Apple Accessibility Features
# Apple Accessibility Features

<table>
<thead>
<tr>
<th>VISION</th>
<th>Accessibility</th>
<th>General</th>
<th>Accessibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>VoiceOver</td>
<td>Off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zoom</td>
<td>Off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invert Colors</td>
<td></td>
<td></td>
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<tr>
<td>Grayscale</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speech</td>
<td></td>
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<tr>
<td>Enabling Invert Colors or Grayscale will automatically disable Night Shift.</td>
<td></td>
<td></td>
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<tr>
<td>Larger Text</td>
<td>Off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bold Text</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Button Shapes</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Increase Contrast</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce Motion</td>
<td>Off</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>INTERACTION</th>
<th>Accessibility</th>
<th>General</th>
<th>Accessibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switch Control</td>
<td>Off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AssistiveTouch</td>
<td>Off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Touch Accommodations</td>
<td>Off</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3D Touch</td>
<td>On</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keyboard</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shake to Undo</td>
<td>On</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vibration</td>
<td>On</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Call Audio Routing</td>
<td>Automatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home Button</td>
<td>Default</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reachability</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Double-tap the home button to bring the top of the screen into view.

<table>
<thead>
<tr>
<th>HEARING</th>
<th>Accessibility</th>
<th>General</th>
<th>Accessibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hearing Aids</td>
<td></td>
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<tr>
<td>LED Flash for Alerts</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Mono Audio</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Phone Noise Cancellation</td>
<td>Yes</td>
<td></td>
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</tbody>
</table>

Noise cancellation reduces ambient noise on phone calls when you are holding the receiver to your ear.

<table>
<thead>
<tr>
<th>MEDIA</th>
<th>Accessibility</th>
<th>General</th>
<th>Accessibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subtitles &amp; Captioning</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audio Descriptions</td>
<td>Off</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Adjust the audio volume balance between left and right channels.
Android Accessibility Features
Android Accessibility Features

- **Services**
  - TalkBack: Off
  - Switch Access: Off

- **System**
  - Captions: Off
  - Magnification gestures: On

- **Display**
  - Large text: On
  - High contrast text (Experimental): On
  - Color inversion (Experimental): May affect performance
  - Color correction: Off

- **Other Features**
  - Power button ends call: Off
  - Auto-rotate screen: Off
  - Speak passwords: Off
  - Accessibility shortcut: On
  - Text-to-speech output: Off
  - Touch & hold delay: Short
Accessibility Features Helpful for Everyone

Apple Devices (iPhone/iPad):
• Siri – Voice Control
• Accessibility Shortcut

Android Devices (LG, Samsung, HTC Phones/Tablets):
• Google Now and Ok Google – Voice Control
• Accessibility Shortcut
Press and hold the Home button or say, "Hey Siri!"
Android: Ok Google – Voice Control

Type in the search bar on top or just say, “Ok Google!”
Apple: Accessibility Shortcut

- Guided Access: Off
- Switch Control: Off
- AssistiveTouch: Off
- Call Audio Routing: Automatic
- Home-click Speed: Default
- Reachability: Double-tap the home button to bring the top of the screen into reach

- Accessibility Shortcut: Off
- VoiceOver
- Invert Colors
- Grayscale
- Zoom
- Switch Control
- AssistiveTouch
Android: Accessibility Shortcut

When this feature is turned on, you can quickly enable accessibility features in two steps:

Step 1: Press and hold the power button until you hear a sound or feel a vibration.

Step 2: Touch and hold two fingers until you hear audio confirmation.

If the device has multiple users, using this shortcut on the lock screen temporarily enables accessibility until the device is unlocked.
Accessibility Features for People who have Difficulty Using their Hands

Apple Devices (iPhone/iPad):
• Touch Accommodations
• Assistive Touch
• Switch Control
• Dictation
• Keyboard Shortcuts
• Swype (3rd Party $0.99 app)
• Apple Pay

Android Devices (LG, Samsung, HTC, Motorola Phones/Tablets):
• Assistant Menu (Samsung)
• Switch Access (Samsung)
• Dictation
• Swype
• Android Pay
Apple: Touch Accommodations

Touch Accommodations Settings

- **Switch Control**: Off
- **AssistiveTouch**: On
- **Touch Accommodations**: Off
- **3D Touch**: On
- **Keyboard**: On
- **Shake to Undo**: On
- **Vibration**: On
- **Call Audio Routing**: Automa...

- **Hold Duration**: On
- **Ignore Repeat**: On

The duration you must touch the screen before a touch is recognized.

- **Hold Duration**: On
- **Ignore Repeat**: On

The duration in which multiple touches are treated as a single touch.

- **Ignore Repeat**: On

The duration in which multiple touches are treated as a single touch.

- **Use Initial Touch Location**: On
- **Use Final Touch Location**: On

Enable Tap Assistance to allow any single finger gesture to perform a tap.
Apple: Assistive Touch

General: Accessibility

INTERACTION
- Switch Control: Off
- AssistiveTouch: On
- Touch Accommodations: Off

3D Touch: On
Keyboard: 
Shake to Undo: On
Vibration: On
Call Audio Routing: Automatic

AssistiveTouch
AssistiveTouch allows you to use your iPhone if you have difficulty touching the screen or if you require an adaptive accessory.

CUSTOM GESTURES
Create New Gesture...
Custom gestures allow you to record gestures that can be activated from Favorites in the Menu.
Apple: Switch Control

Switch Control Settings

Switch Control
Switch Control allows you to use your iPhone by sequentially highlighting items on the screen that can be activated through an adaptive accessory.

TIMING
Auto Scanning Time 1s
Pause on First Item Off
Loops 4
Move Repeat Off
Long Press Off
Tap Behavior Default
Always Tap Keyboard Keypad Off

SWITCH STABILIZATION

AUDIO
Sound Effects
Speech Off

Menu Items

Group Items
Groups items for faster navigation.

VISUAL
Large Cursor
Cursor Color Blue
Apple: Dictation
Apple: Keyboard Shortcuts, Swype

Keyboard Shortcuts

- Auto-Capitalization
- Auto-Correction
- Check Spelling
- Enable Caps Lock
- Predictive
- "." Shortcut

Double tapping the space bar will insert a period followed by a space.

Swype
Apple: Wallet & Pay

Keep your boarding passes, movie tickets, retail coupons, and rewards cards in one place. And show them on your lock screen when you need them.

Scan Code

Find Apps for Wallet
Android: Assistant Menu (Samsung only)
Android: Switch Access (Samsung only)

Switch Access allows you to control your device using configurable key combinations. You can move focus to clickable items and select them.
Android: Dictation, Swype
Android: Pay
## Examples of Apps for Dexterity Impairments

<table>
<thead>
<tr>
<th>App</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetra Alarm</td>
<td>• Highly customizable timer that notifies you of weight shifts, bio-breaks, or to take meds</td>
</tr>
<tr>
<td>Parking Mobility</td>
<td>• Report disabled parking abuse to your city in less than two minutes</td>
</tr>
<tr>
<td>Perfect Keyboard</td>
<td>• Setup your Android keyboard so that it works best for you</td>
</tr>
<tr>
<td>Big Launcher</td>
<td>• Simplifies user interface of home screen and app pages</td>
</tr>
</tbody>
</table>

*Images of apps icons*
Accessibility Resources

• AT&T Accessibility (download presentations) – att.com/accessibility
• AT&T Digital You – digitalyou.att.com
• AT&T for Disability and Aging for Wireline Services – Voice: 1-800-772-3140; TTY: 1-800-651-5111
• Wireless RERC – wirelessrerc.org
• LiveWell RERC – livewellrerc.org
• FCC Accessibility Clearing House – ach.fcc.gov
• Global Accessibility Reporting Initiative (GARI) – gari.info
If you have any questions, contact:
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– 404-894-7034