

# What is: Accessibility?

“Development of information systems flexible enough to accommodate the needs of the broadest range of users  
...regardless of age or disability”

## Principles of Accessibility - WCAG 2.0

**Perceivable** – information must be available through sight, hearing or touch

**Operable** - compatible with keyboard or mouse

**Understandable** - User-friendly, easy to comprehend

**Robust** - Works across browsers, devices, assistive technologies

## Your site can be WCAG compliant, yet still be inaccessible (Technically accessible, yet functionally inaccessible)

If people can't get information, they may very well take their healthcare business elsewhere resulting in:

- Lost hospital admissions
- Lost ER visits
- Lost patient visits for practices
- Lost surgery center visits
- Lawsuits

## The main categories of disabilities affected by Internet accessibility barriers are...



### Hearing

- ▶ Hard of hearing
- ▶ Deafness



### Visual

- ▶ Blindness
- ▶ Low-vision
- ▶ Color blind



### Motor

- ▶ Inability to use a mouse
- ▶ Slow response time
- ▶ Limited fine motor control

## Accessibility Best Practices – Do's and Don'ts

### ✔ Use headings properly

No more than 1 **h1** on a page unless using `<section>` and `<article>` for additional **h1**s  
Do not skip heading levels, an **h1** should be followed by an **h2**, followed by an **h3** etc.  
Do not use blank **Hx** tags  
Do not use formatted paragraph text as a substitute for headings

### ✔ Use semantic organization

Use a proper list when it's a list of items, not a 'fake' list of links or paragraphs (screen reader users can choose to pull up lists)

### ✔ Include the alt attribute for every image

Do include form image buttons (better to use non-image buttons), and image map hot spots  
Do limit text within graphics: rotators, banners, campaigns  
Do include name and title in the alt attribute of individuals pictured in news articles  
Do leave the alt text null (`alt=""`) if images have surrounding text or headings that describe the image  
If an image is the only thing in a link, then the alt text should reflect where that link is going.  
Do not include words such as 'logo of' or 'picture of' or things like 'smiling lady' etc.  
Do not use infographics and charts without also making the information available as real text  
Do not include title attributes on images

### ✔ Provide meaningful link text

Learn more, read more, click here, etc. – taken out of context this type of link text is meaningless and can be confusing to screen reader users. Link text should convey the purpose of the link.  
Watch linking using single words, phrases are better ex: specialists vs. orthopedic specialists or services vs. cardiology services.  
Urls alone should not be the link text, link the words of the link destination.

### ✔ Links should not include the title attribute

### ✔ Tables – are for tabular data only, not for layout

Row and column headings, where necessary, should be used to associate data cells with headers.  
Table headers should have appropriate scope attributes  
There should be no empty `<th>`  
Do not use table summary, use `<caption>` instead to describe the table's purpose

### ✔ Color alone should not be used to convey content

### ✔ Simplify medical terminology or link terms to an explanatory resource

### ✔ Include Title and Subject fields in PDF document summaries

Forms: include Facility/practice name and the name of the form

### ✔ If you are using an iframe, the title attribute should be describing what's in the iframe

## Testing Tools

### Site test tools

<http://www.tenon.io/> and <http://wave.webaim.org/>

### WebAIM Contrast Checker

<http://webaim.org/resources/contrastchecker/>

### NVDA (NonVisual Desktop Access): Free, open source screenreader

<http://www.nvaccess.org/>

### Contrast Ratio Calculator

<http://leaverou.github.io/contrast-ratio/>

### NoCoffee - Chrome extension: Color blindness & vision impairments simulator

<https://chrome.google.com/webstore/detail/nocoffee/jjeegmbn-hckmgdhmgdckeigabjfbdd?hl=en-US>

### Functional Accessibility Evaluator 2.0

<http://fae20.cita.illinois.edu/run/anonymous/>

## Resources

### Accessibility Evaluation Quick Reference

<http://webaim.org/resources/evalquickref/>

### WCAG 2.0 Checklist

[webaim.org/standards/wcag/checklist/](http://webaim.org/standards/wcag/checklist/)

### Alt Decision Tree

<http://www.w3.org/WAI/tutorials/images/decision-tree/>

### The Paciello Group

<http://www.paciellogroup.com> and their blog <http://paciellogroup.com/blog/>

### Deque University for Accessibility Training

<http://www.deque.com/services/deque-university/>

### Web Accessibility Tutorials – W3.org

<http://www.w3.org/WAI/tutorials/>

### Using the html title attribute

<http://www.paciellogroup.com/blog/2010/11/using-the-html-title-attribute/>

### Google's Guide to Designing with Empathy

<http://www.fastcodesign.com/3047545/googles-guide-to-designing-with-empathy>

### Making Accessible Links – 15 Golden Rules for Developers

<http://www.sitepoint.com/15-rules-making-accessible-links/>

### 8 Myths about How Blind People Use the Internet

<http://speckyboy.com/2013/02/04/myths-about-how-blind-people-use-the-internet/>