# General techniques (Useful for most people with Aphasia)

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# Emphasis structure

### Use headings and labels describe topic or purpose.

Simple coloured headings with fonts two size larger than general content to aid navigation skills

#### Explanation and who it helps:

This supports those who have reading and some visual perceptual difficulties due to Receptive Aphasia (Wernicke’s Aphasia) and acquired dyslexia as well as those with general cognitive learning disabilities, where long sentences and complex words can cause difficulties.[[1]](#endnote-1)

Rose, Worrall, and McKenna (2003) found people with aphasia comprehended significantly more health information from PEMs developed with: (1) simple words and short sentences, (2) large and standard font, (3) white space, and (4) relevant pictures.

**Use for tags:** Receptive Aphasia, acquired dyslexia

**Avoid for tags:**

**Pass examples:**

**Failure examples:**

**Sources/research:**

iRose, T.A., Worrall, L.E., Hickson, L.M., Hoffmann, T.C. (2011). Aphasia friendly written health information: Content and design characteristics. International Journal of Speech-Language Pathology, 13(4), 335-47.

### Use consistent styles

Ensure:

* appearance of controls and menu items consistent in all areas
* clarity of display on plain backgrounds
* fonts are of a single style

#### Explanation and who it helps:

This supports those who have reading and some visual perceptual difficulties due to Receptive Aphasia and acquired dyslexia as well as those with general cognitive learning disabilities. It also helps those with visual acuity difficulties where stroke and age related disabilities co-occur.

**Use for tags:** Receptive Aphasia, acquired dyslexia, visual acuity difficulties

**Avoid for tags:**

**Pass examples:**

**Failure examples:**

**Sources/research:**

The Aphasia Alliance's Top Tips for 'Aphasia Friendlier' Communication taken from http://www.buryspeakeasy.org.uk/documents/Aphasia%20Alliance%20Aphasia%20Friendier%20Communication.pdf

### Use presentation, colour and symbols to convey structure, and relationships

Ensure that

* icons, controls and menus are located in consistent and non- distracting areas.
* highlight key points in bold - (be careful not to over use, because it feels like shouting)
* text boxes to highlight important information”i

#### Explanation and who it helps:

“People with aphasia post-stroke have also been reported to have more specific design preferences compared to people without aphasia, preferring written stroke information to contain colour and text supported with diagrams” (Eames et al., 2003)ii

**Pass examples:**

**Failure examples:**

**Sources/research:**

iThe Aphasia Alliance's Top Tips for 'Aphasia Friendlier' Communication taken from http://www.buryspeakeasy.org.uk/documents/Aphasia%20Alliance%20Aphasia%20Friendier%20Communication.pdf

iiEames, S., McKenna, K., Worrall, L., & Read, S. (2003). The suitability of written education materials for stroke survivors and their carers. Topics in Stroke Rehabilitation, 10(3), 70-83.

### Use lists

Ensure that:

* bullet points are well spaced
* a minimal number of words are used (e.g.5)
* Lists are not cluttered by surrounding items
* Keywords start the statement such as “Stroke happens suddenly”i

#### Explanation and who it helps:

This supports those who have reading difficulties due to Receptive Aphasia and acquired dyslexia as well as those with general cognitive learning disabilities.

**Pass examples:**

**Failure examples:**

**Sources/research:**

i Stroke Association Accessible Information Guidelines http://www.stroke.org.uk/professionals/accessible-information-guidelines

### Use presentation to show structure

Include a short introduction to summarise content

* divide the information into topics
* keep main information to the top left where the eye goes first in English (consider localisation for right to left languages such as Arabic)
* use white space to define areas
* include an index
* keep linking images simple and explanatory i

#### Explanation and who it helps:

This supports those who have any type of Aphasia, specific learning difficulties as well as those with general cognitive learning disabilities.

**Pass examples:**

**Failure examples:**

**Sources/research:**

iBrennan, A., Worrall, L., & McKenna, K. (2005). The relationship between specific features of aphasia-friendly written material and comprehension of written material for people with aphasia: An exploratory study. *Aphasiology*, *19*(8), 693–711. doi:10.1080/02687030444000958

### Use symbols to show meaning

* Clear symbols that have good guessability, translucency and transparency can aid understanding
* Symbols as an addition to short sentences can aid meaningi

#### Explanation and who it helps:

This supports those who have Expressive (Broca’s) Aphasia, specific learning difficulties as well as those with general cognitive learning disabilities.

**Pass examples:**

**Failure examples:**

**Sources/research:**

iGarrett, K. L., Beukelman, D. R., & Low-Morrow, D. (1989). A comprehensive augmentative communication system for an adult with Broca's aphasia. Augmentative & Alternative Communication, 5(1), 55.

**Also see:**

* Info and Relationships: Information, structure, and relationships conveyed through presentation can be programmatically determined or are available in text. (WCAG 1.3.1 Level A)
* Headings and Labels: Headings and labels describe topic or purpose. (WCAG 2.4.6 Level AA)
* Consistent Navigation: Navigational mechanisms that are repeated on multiple Web pages within a set of Web pages occur in the same relative order each time they are repeated, unless a change is initiated by the user. (WCAG 3.2.3 Level AA)
* Consistent Identification: Components that have the same functionality within a set of Web pages are identified consistently. (WCAG 3.2.4 Level AA)

### Use A Clear Writing Style

Ensure that

* the message is clear
* extraneous information is removed
* one message is delivered at a time
* Key points are separated out
* Lists and bullet points are used
* Order of statements is logical i

#### Explanation and who it helps:

This supports those who have reading and some visual perceptual difficulties due to Receptive Aphasia and acquired dyslexia as well as those with general cognitive learning disabilities, where long sentences and complex words can cause difficulties.

**Pass examples:**

**Failure examples:**

**Sources/research:**

i Stroke Association Accessible Information Guidelines http://www.stroke.org.uk/professionals/accessible-information-guidelines

### Give instructions clearly.  Avoid long sentences.

* use short clear sentences
* leave plenty of space between lines
* use at least 1.5 spacing between lines
* use clear headings to signpost informationi

#### Explanation and who it helps:

**Pass examples:**

**Failure examples:**

**Sources/research:**

iThe Aphasia Alliance's Top Tips for 'Aphasia Friendlier' Communication taken from http://www.buryspeakeasy.org.uk/documents/Aphasia%20Alliance%20Aphasia%20Friendier%20Communication.pdf

### Use active rather than passive voice.

* Ensure that the subject starts the sentence
* Possible use of ‘you’ but careful use of other pronouns such as ‘she’, ‘he’ etc ii
* Determiners such as ‘this’ and ‘that’ can confuse

#### Explanation and who it helps:

Those with Expressive Aphasia may ﬁnd the use of passive voice “diﬃcult due to problems with retrieving the relevant grammatical morphemes” and those with receptive Aphasia may also find it hard to automatically understand the meaning of passive voice i

**Pass examples:**

**Failure examples:**

**Sources/research:**

iFaroqi-Shah Y, Thompson CK. Effect of lexical cues on the production of active and passive sentences in Broca’s and Wernicke’s aphasia. Brain and Language. 2003;85:409–426. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3034248/>

iiStroke Association Accessible Information Guidelines http://www.stroke.org.uk/professionals/accessible-information-guidelines

### Avoid double negatives.

* It is important to avoid sentences that contain double negatives or dependent clauses for example *“He doesn’t have nothing but the clothes on his back.”*

#### Explanation and who it helps:

These sentences tend to be grammatically incorrect and confusing – their use should be avoided for all those who have any type of Aphasia, specific learning difficulties as well as those with general cognitive learning disabilities.

**Pass examples:**

**Failure examples:**

**Sources/research:**

iSarno, M.T(1998) (ed) Acquired Aphasia. San Diego : Academic Press, 1998,   
— id: 1029, year: 1998, vol: 1, page: 28

### Be concise

* + Choose words that are in general use
  + Use common words that are easily understood
  + Make the meaning clear
  + Avoid hyphenated words and acronyms
  + Be factual
  + Avoid multiple points in one sentence i

#### Explanation and who it helps:

This supports those who have reading and difficulties due to Receptive Aphasia and acquired dyslexia as well as those with general cognitive learning disabilities, where long sentences and complex words can cause difficulties.

**Pass examples:**

**Failure examples:**

**Sources/research:**

iStroke Association Accessible Information Guidelines http://www.stroke.org.uk/professionals/accessible-information-guidelines

### Include short tooltips on all icons, jargon

These may not be noticed by some who have severe aphasia and a visual agnosia and could add clutter and even confuse if they are read out by a screen reader or text to speech support. But for those with less severe difficulties they could be helpful. If tooltips are to be used they must precise and relate directly to the object.

#### Explanation and who it helps:

The amount of help offered by tooltips very much depends on the ability of the user as do many of the techniques above.

**Pass examples:**

**Failure examples:**

**Sources/research:**

#### Notes/ sources:

From WCAG:

* Guideline 3.1 Readable: Make text content readable and understandable.
* Unusual Words: A mechanism is available for identifying specific definitions of words or phrases used in an unusual or restricted way, including idioms and jargon. (3.1.3 Level AAA)
* Abbreviations: A mechanism for identifying the expanded form or meaning of abbreviations is available. (3.1.4 Level AAA)
* Reading Level: When text requires reading ability more advanced than the lower secondary education level after removal of proper names and titles, supplemental content, or a version that does not require reading ability more advanced than the lower secondary education level, is available. (3.1.5Level AAA)
* Pronunciation:  A mechanism is available for identifying specific pronunciation of words where meaning of the words, in context, is ambiguous without knowing the pronunciation. (3.1.6 Level AAA)

### Font and Layout

Ensure that

* + There is white space around blocks of text
  + Left justification
  + font size is between 14 and 18 pt
  + there is no change in font style
  + sans serif font is used such as Arial and Calibri
  + capital letters are used sparingly e.g. first word only and names
  + Take care to use bold text just for key items
  + Make important information two font sizes bigger
  + Try to avoid the underlining of text - where hyperlinks may have the default underline ensure they have a different colour

Explanation and who it helps:

These are sensible clear reading guidelines for all and can support those with a wide range of disabilities and reading difficulties including those with cognitive learning disabilitiesi.

**Pass examples:**

**Failure examples:**

**Sources/research:**

iAm I making myself clear? Mencap’s guidelines for accessible writing <http://www.easy-read-online.co.uk/media/10609/making-myself-clear.pdf>

### Enough Time

Timed event should be avoided – if they are necessary there need to be clear controls, pauses and the ability to return to the original point and an alternative is included.

#### Explanation and who it helps:

#### Timed events rarely help anyone and can cause stress and frustration.

**Pass examples:**

**Failure examples:**

**Sources/research:**

### No Loss of data

Data needs to be held, saved and available if webpages are refreshed by accident, closed or new tabs are opened. There needs to be the ability to return to forms partially filled and the ability to save content but security issues may prevent this on some websites.

#### Explanation and who it helps:

This helps everyone although it is appreciated that for security reasons this may not always be possible – alternatives need to be offered if it is not possible.

**Pass examples:**

**Failure examples:**

**Sources/research:**

#### Notes/ sources

**From WCAG**

* Timing Adjustable: For each time limit that is set by the content, at least one of the following is true: (WCAG2.2.1 Level A)
* Pause, Stop, Hide: For moving, blinking, scrolling, or auto-updating information, all of the following are true: (2.2.2 Level A)
* No Timing: Timing is not an essential part of the event or activity presented by the content, except for non-interactive synchronized media and real-time events. (2.2.3 Level AAA)
* Re-authenticating:  When an authenticated session expires, the user can continue the activity without loss of data after re-authenticating. (2.2.5 Level AAA)

### Build trust

* Provide context sensitive help
* Glossary of complex words
* Images that represent objects rather than stylised icons or symbols
* Systematic use of colour with simple headings
* Adding an image under a sentence to aid understandingi

Explanation and who it helps:

This supports those who have Receptive Aphasia as well as those with general cognitive learning disabilities

**Pass examples:**

**Failure examples:**

**Sources/research:**

iStroke Association Accessible Information Guidelines http://www.stroke.org.uk/professionals/accessible-information-guidelines

### Prevent errors

* Clear navigation
* Clear controls with contrasting colours and shapes
* Ability to return to a task

Explanation and who it helps:

Clearly this aids all website users

**Pass examples:**

**Failure examples:**

**Sources/research:**

#### Notes/ sources

**From WCAG**

* Error Prevention (Legal, Financial, Data): … (3.3.4 Level AA)
  + Reversible: Submissions are reversible
  + Checked: Data entered by the user is checked for input errors and the user is provided an opportunity to correct them.
  + Confirmed: A mechanism is available for reviewing, confirming, and correcting information before finalizing the submission.
  + Error Prevention (All): For Web pages that require the user to submit information, at least one of the following is true: (3.3.6Level AAA)
  + Help: Context-sensitive help is available. (3.3.5 Level AAA)

### Attention techniques

Ensure that

* + There are no distracting elements such as blinking text
  + Scrolling banners are avoided
  + Text is kept to narrow columns in the centre of the site
  + White space is used around text
  + Clutter is avoided
  + Extraneous and inconsequential media events are avoided
  + No sudden changes occur on the site

Explanation and who it helps:

Those with aphasia may have visual and audio perceptual difficulties and be confused by sudden interruption and distracting happenings. Attention may be poor and there is a need to have time and space to concentrate on the task in hand.

**Pass examples:**

**Failure examples:**

**Sources/research:**

Wiig, E. H., & Austin, P. W. (1972). Visual attention and distraction in aphasic and non-aphasic children. *Perceptual and motor skills*, *35*(3), 863-866.

#### Notes/ sources

From WCAG

* Interruptions: Interruptions can be postponed or suppressed by the user, except interruptions involving an emergency. (WCAG 2.2.4Level AAA)
* Low or No Background Audio(WCAG1.4.7 Level AAA) ...

1. [↑](#endnote-ref-1)