

George Boole, innovator of Boolean logic

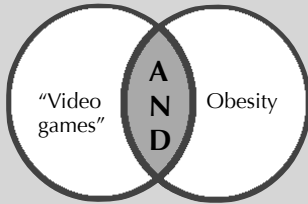
Save your time!

Use Boolean operators for online searching. Get fewer, more targeted results.

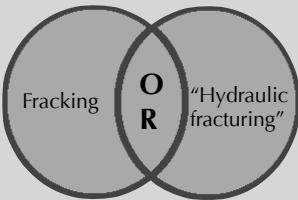
Boolean operators: And, Or, Not

Gray area = Search results

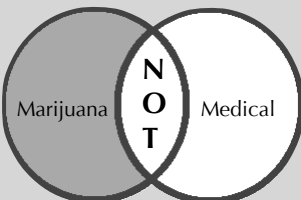
Type **And** between search terms to find web pages and articles that have **both terms**. This type of Boolean search limits your results and increases accuracy.



The **Or** operator increases your results. You won't use it often. It works best when searching specialized terms.



The **Not** (sometimes **And Not** or **But Not** - check the search tips) excludes terms that aren't relevant for your research.



Advanced search strategies

Phrase searching

Want to keep search words together in a specific order? Bind them using quotation marks. This helps when searching generic terms. Phrase searching tells search engines to "see" common **stop words** such as *a, and, are, be, the, at, on, of, for* that are filtered out to save search time. Phrases can be combined with Boolean operators.

- "to be or not to be"
- "financing college" **not** loans

Nesting search terms

When you're using keyword searching, you may want to search synonyms. Save time! "Nest" them in parentheses and add **or** operators:

- (firearms **or** guns) **and** safety
- ("Affordable Care Act" **or** Obamacare) **and** (cost **or** premium **or** expense)

Truncating search terms

Use an asterisk to fill in for part of the word if you want to quickly search:

- singular and plural forms of a word
- to find words that start with the same letters
- to find words that are spelled in more than one way such as color or colour

Example: child* retrieves child, child's, childhood, children, children's

Another example: When searching for World War I aircraft, truncate the search word **airplane** as ***plane** to get results that include **plane, airplane, aeroplane, and biplane**. Truncate twice — ***plane*** — to search for plural versions of all the words listed.

Truncation saves time and helps you avoid missing something important, but you will retrieve more results.

*Tip: You'll get too many unrelated results if you truncate a term using only two or three letters. Consider how many very different words **car*** would retrieve!*

Can I use Boolean operators when searching Google?



After you run a Google search, look for the gear symbol (shown above) on the upper right side of your search results. Click it and select **Advanced search**. The search boxes shown below on the left will appear, along with a list of shortcut search strategies you can use in the main Google search box.

Find pages with...

all these words:	this is an And search
this exact word or phrase:	this binds your search terms to keep them together
any of these words:	this is an Or search
none of these words:	this is a Not search

To do this in the search box

Type the important words:	tricolor rat terrier
Put exact words in quotes:	"rat terrier"
Type OR between all the words you want:	miniature OR standard
Put a minus sign just before words you don't want:	-rodent, -"Jack Russell"