Connectors and proximity operators - Expert search

You can use connectors and proximity operators to specify the words you want to include or **exclude** from your search results and to search for more than one **word** in a single search. If you use more than one connector or operator in your search, ScienceDirect® interprets the search according to the order of precedence.

To search for a specific phrase, enclose the terms in double quotes (" ") or, for an exact match, brackets ({}). See Searching for Phrases for more information.

Connector	Description
AND	When AND is used, all of the terms in your search must appear in the returned documents, even if the terms are far apart from each other. Example — lesion AND pancreatic would only return documents that contained both the terms lesion and pancreatic. AND is the default connector. When you enter 2 or more search terms, AND is automatically inserted between any spaces or hyphens in the terms. Example — If you searched for heart attack or heart-attack both would be searched as heart AND attack.
OR	Use OR when at least one of your search terms must appear in returned documents. You can use OR to search for synonyms, alternate spellings, or abbreviations. Example — kidney OR renal would return documents that contained either of the terms kidney or renal.
AND NOT	Use AND NOT to **exclude** specific terms from returned documents. Example — ganglia OR tumor AND NOT malignant would find documents that contained the terms ganglia or tumor, but not the term malignant.
W/*n*	Use W/n to specify how far apart terms may appear in documents. W represents "within", and n represents the maximum number of words between the terms. Note — W/n does not specify the **word** order. Either **word** may appear first. Example — pain W/15 morphine would find documents that had the terms "pain" and "morphine" within 15 words of each other. Use the following guidelines when choosing a number for n: • To find terms in the same phrase, use W/3, W/4, or W/5.

Connector	Description
	• To find terms in the same sentence, use W/15. • To find terms in the same paragraph, use W/50.
PRE/*n*	Use PRE/n to find documents in which the first term precedes the second term within a specified number (n) of words. Example — behavioural PRE/3 disturbances would find documents in which behavioural precedes disturbances by three or fewer words.

Tips

- Do not mix the W and PRE connectors in the same search, unless you use parentheses to separate the expressions.

  Examples
  bay W/6 ship PRE/0 channel is an **invalid** search

  (bay W/6 ship) AND (ship PRE/0 channel) is a **valid** search

- Do not use the OR connector and a W or PRE connector in the same search, unless you use parentheses to prioritize the proximity expression.

  Examples
  ethyl OR butyl W/3 fluoride is an **invalid** search.

  (ethyl W/3 fluoride) OR (butyl W/3 fluoride) is a **valid** search.

- If your search does not contain the PRE or W proximity connector, the OR and AND connectors can be used in the same search without parentheses. In this case, the Boolean order of precedence rules.

- If you use different numbers for n in the same search, the final number will be used for all values of n.

  coronary W/2 circadian W/5 rhythm would actually search for:

  Example   coronary W/5 circadian W/5 rhythm because 5 is the last value for n.

  Note: The search results page will display your original search terms.