

Training Guide on
Searching the Cochrane Library- www.thecochranelibrary.com

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What is the Cochrane Library?

The Cochrane Library is a unique source of reliable and up-to-date information on the effects of interventions in health care and is designed to provide information and evidence to support decisions taken in health care and to inform those receiving care.

The Cochrane Library consists of a regularly updated collection of evidence-based medical databases. The Cochrane Database of systematic reviews (CDSR) is updated monthly and the rest of the databases are updated quarterly.

When to use the Cochrane Library

The whole of the Cochrane Library is concerned with the effectiveness of interventions for a given health care problem or in a particular health care situation.

The Cochrane Library **is useful** for answering the following types of queries:

- **What is the effectiveness of treatment X in condition Y?**
What is the effectiveness of aspirin in vascular dementia?
- **Is treatment A better than treatment B?**
Is there any evidence that clozapine is more effective in the treatment of schizophrenia than standard antipsychotics?
- **What is an effective intervention to achieve outcome Z?**
What are the most effective strategies for stopping smoking?

The Cochrane Library **is not useful** for these types of questions:

- **General** health care information
Are there any new drugs for manic depression?
- **Statistical information**
What is the teenage pregnancy rate?
- **Cause, prognosis, epidemiology or risk factors for an illness**
What are the health effects of unemployment?
- **Guidelines**
- **Current research** (apart from systematic reviews and randomised controlled trials)

Accessing the Cochrane Library

You can access the Cochrane Library at:

- www.thecochranelibrary.com
- www.hilo.nhs.uk (under Search for Evidence)
- www.evidence.nhs.uk (under Journals and Databases)

You do not need a password to access the site or to conduct one-off searches but if you want to save searches and set up email alerts, you should register. To do so, click on **Log In** at the bottom of the screen and then click on **Register** at the left hand side of the screen.

The Home Page

The screenshot shows the Cochrane Library home page. On the left, three callout boxes point to specific features: 'Search box for easy searches.' points to the main search input field; 'Further search methods.' points to the 'Advanced Search' link; 'Links for browsing each database.' points to the 'BROWSE COCHRANE DATABASE OF SYSTEMATIC REVIEWS' section. On the right, a callout box points to the 'LEARN' menu, stating 'Learn provides links to information about the library and how to use it, Cochrane Collaboration and systematic reviews'. The page itself features the Cochrane Library logo, a search bar, navigation links (HOME, SIGN UP, LEARN, ACCESS, HELP), and sections for 'BROWSE COCHRANE DATABASE OF SYSTEMATIC REVIEWS' and 'SPECIAL COLLECTIONS'.

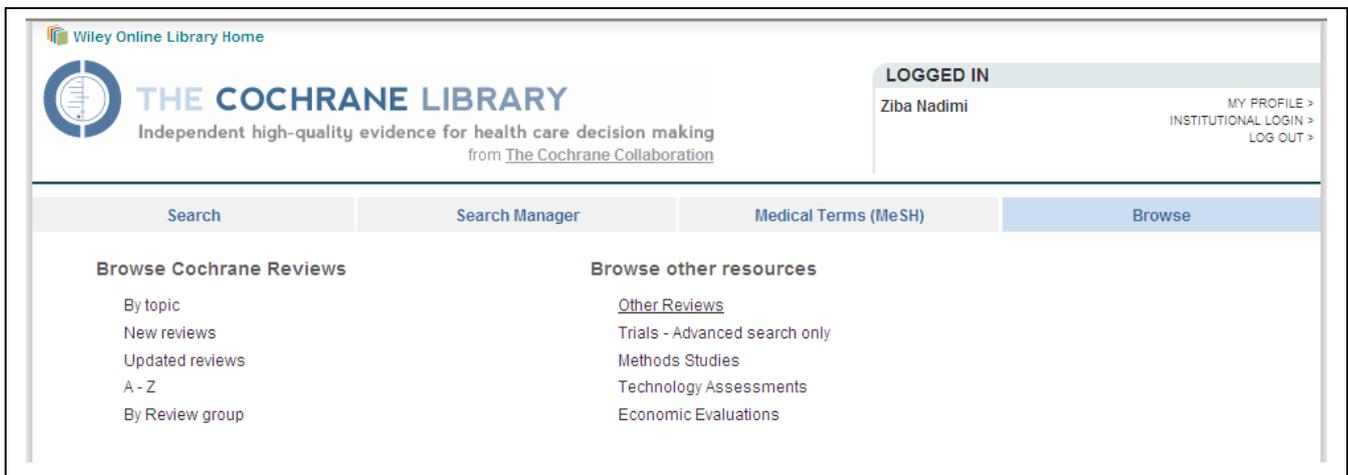
The Cochrane Library consists of several databases and all the databases are searched simultaneously.

- **Cochrane Reviews - Database of Systematic Reviews** - A systematic review identifies an intervention for a specific disease or other problem in health care, and determines whether or not this intervention works. To do this authors locate, appraise and synthesise evidence from as many relevant scientific studies as possible. Systematic reviews differ from other types of review in that they adhere to a strict design in order to make them more comprehensive, thus minimising the chance of bias, and ensuring their reliability. The reviews are full text.
- **Other Reviews - Database of Abstract of Reviews of Effects** – DARE includes structured abstracts of systematic reviews. Only reviews that meet minimum quality criteria are included. These reviews cover topics that have yet to be addressed by a Cochrane review. They do not contain the full text of the article.
- **Clinical Trials - Cochrane Central Register of Controlled Trials** – CENTRAL includes references to published articles taken from bibliographic databases (notably Medline and EMBASE) and other published and unpublished sources. They do not contain the full text of the article.
- **Methods Studies - Cochrane Methodology Register** – CMR, a bibliography of publications which report on methods used in the conduct of controlled trials.

- **Technology Assessments - Health Technology Assessment Database** – HTA contains details of ongoing projects and completed publications from health technology assessment organisations.
- **Economic Evaluations - NHS Economic Evaluation Database** – NHS EED contains structured abstracts of articles describing economic evaluations of health care interventions. Papers are included if they provide a comparison of treatments and examine both the costs and outcomes of the alternatives.

Searching the Cochrane Library

You can either browse or search to find the relevant material in the Cochrane Library. You can browse on the home page as shown on the screen shot above or click **Advanced Search** on the home page and on the following page click **Browse**. You will then see the page below.

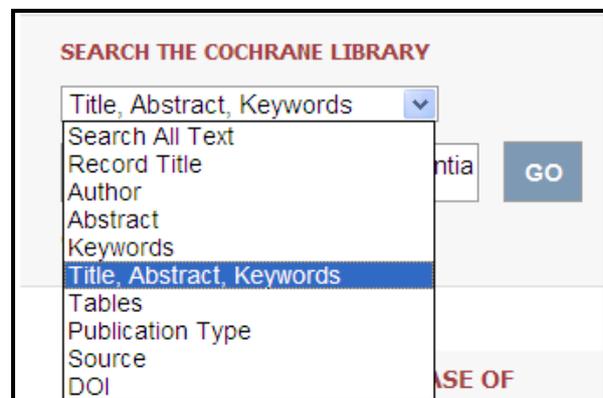
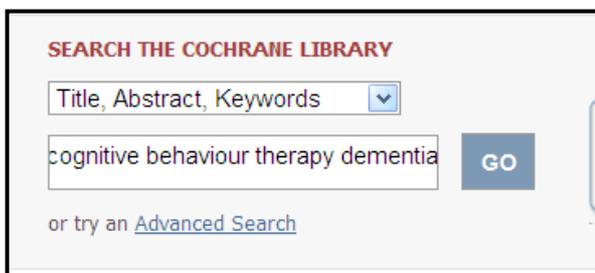


Simple search

You can conduct simple searches in the single search box on the Cochrane Library front page.

Key in your search terms and click **Go**.

As a default the Title, Abstract and Keywords fields are searched, but you can also assign your search to other fields of the database by using the drop down menu, e.g. just the record title
Word variations are also searched (e.g. American vs English spelling)



Hint

If you use simple search for a search containing several search terms, including synonyms, be sure to use brackets around terms to ensure that the search you want runs smoothly.

For example:

- ("cognitive behaviour therapy" or CBT) and (dementia or Alzheimer*) It is vital to put brackets around the two synonymous terms to ensure that they are OR'ed together. With complex databases such as the Cochrane Library, AND commands will always run first within a search string, so without the brackets the search would in effect be: "cognitive behaviour therapy" or (CBT and dementia) or Alzheimer*

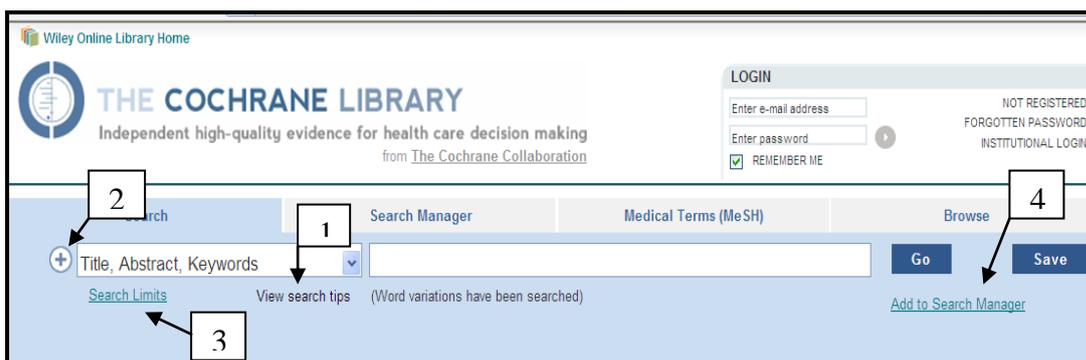
Advanced Search

Click on **Cochrane Advanced Search** below the single search box on the home page. Advanced Search (the Search Tab) allows more complex searches enabling you to enter several search concepts in up to five search boxes at one time.

Enter the terms and click **Go** as in Simple search.

Advanced search supports logical operators (AND OR etc), nesting and wildcards, and has field options in drop down menus.

1. Click **view search** tips for some useful hints. .
2. Clicking on the **+** beside the box will add another line to the search. Enter your terms in the box and choose a field from the drop down menu as in the simple search.
3. Click on **Search limits** to enable you to restrict your search by Document type, Status or Date. (see below)
4. Clicking on **Add to Search manager** after you complete the search will transfer the search strategy to the search manager page, Experienced searchers can build up a more complex search in Search Manager.



Be sure to incorporate all synonyms within a single search box and not split them up. You will have one line for each concept putting OR between each synonym/term. You could construct the search as follows:

1. "cognitive behaviour therapy" OR CBT OR "cognitive behavioural treatment"
AND
2. Dementia* or Alzheimer*

This is shown in the screen below.



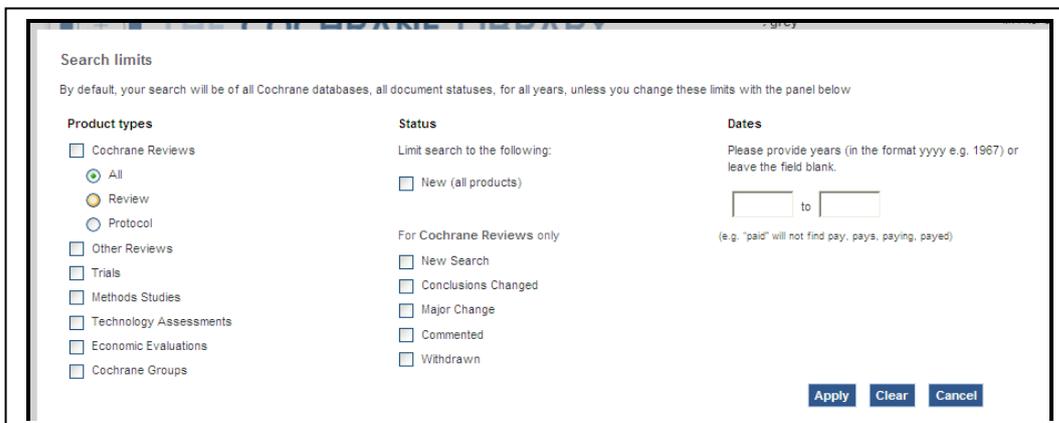
Do **not** construct a search statement such as:

1. "cognitive behaviour therapy"
 2. **OR** CBT
 3. **AND** Dementia
- (See hints in Simple search)

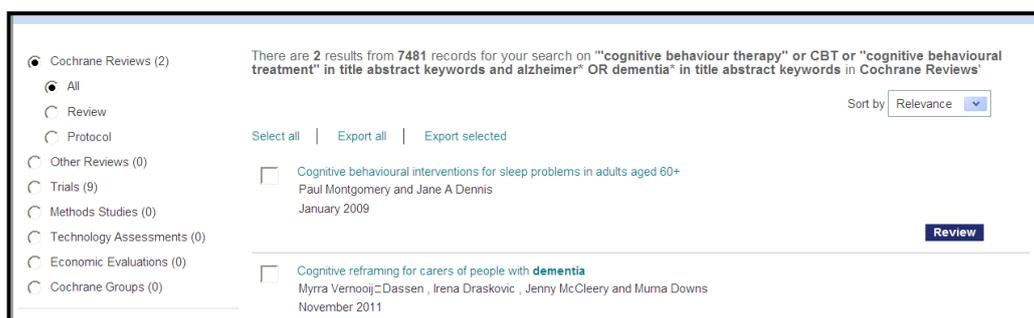
Limits

You can also choose to:

1. Restrict your search to particular databases within the Cochrane Library
2. Select just new, updated, commented or withdrawn records (this applies to CDSR and CDMR only)
3. Select a date range for your search



There is little value in restricting your search to individual databases because search results are split by database allowing you to choose which set of results to look at. (see below) Just click on one of the options in the menu at the left hand side of the search results screen to see the results in that product (e.g. trials).



MeSH Search

Searching MeSH index terms is the most comprehensive way of finding relevant items. MeSH stands for Medical Subject Headings. It is a thesaurus of index terms used by Medline.

To do a MeSH search, click on **Medical Terms (MeSH)**. Enter a term in the search box, select the appropriate term from the drop down menu and click on **Lookup**.

One or more trees of terms will appear. If any of the trees have a sub-branch of narrower terms and you want to include them in your result as well as the broader term, tick the box for the tree of your choice to **explode** the term. If there is no narrower term or you only want to get the broader term in your result, select **Single Mesh term (unexploded)** box. You then click on **Add to Search Manager**.

You can also apply any number of qualifiers to your main concept to make it more specific.

In the screen below MeSH structure for dementia and other options on the search screen such as **Lookup** and **Add to Search Manager** are shown and single MeSH term (unexploded) is selected.

The screenshot displays the MeSH search interface with the following components:

- Search Bar:** Contains the text "Dementia" and a "Lookup" button.
- Search Manager:** Shows "Medical Terms (MeSH)" selected.
- Definition:** Provides a detailed description of dementia: "An acquired organic mental disorder with loss of intellectual abilities of sufficient severity to interfere with social or occupational functioning. The dysfunction is multifaceted and involves memory, behavior, personality, judgment, attention, spatial relations, language, abstract thought, and other executive functions. The intellectual decline is usually progressive, and initially spares the level of consciousness."
- Thesaurus matches:** Lists "Exact Term Match" and "Phrase Matches" for "Dementia".
- MeSH trees:** A hierarchical list of terms including "Dementia", "Nervous System Diseases [+15]", "Central Nervous System Diseases [+10]", "Brain Diseases [+30]", "Akinetic Mutism", and "Amblyopia". The "Single MeSH term (unexploded)" option is selected.
- Search results:** A summary box indicating 3234 results for the search on "MeSH descriptor: [Dementia] explode all trees". It includes a table of results:

Category	Count
Cochrane Reviews	90
Other Reviews	207
Trials	2763
Methods Studies	0
Technology Assessments	109
Economic Evaluations	65
Cochrane Groups	0

When you finish your free text and MeSH searches, you can then combine the results of free text searches with MeSH searches using **OR** and **AND** operators as explained before. This will add the total search result to the **Search Manager**.

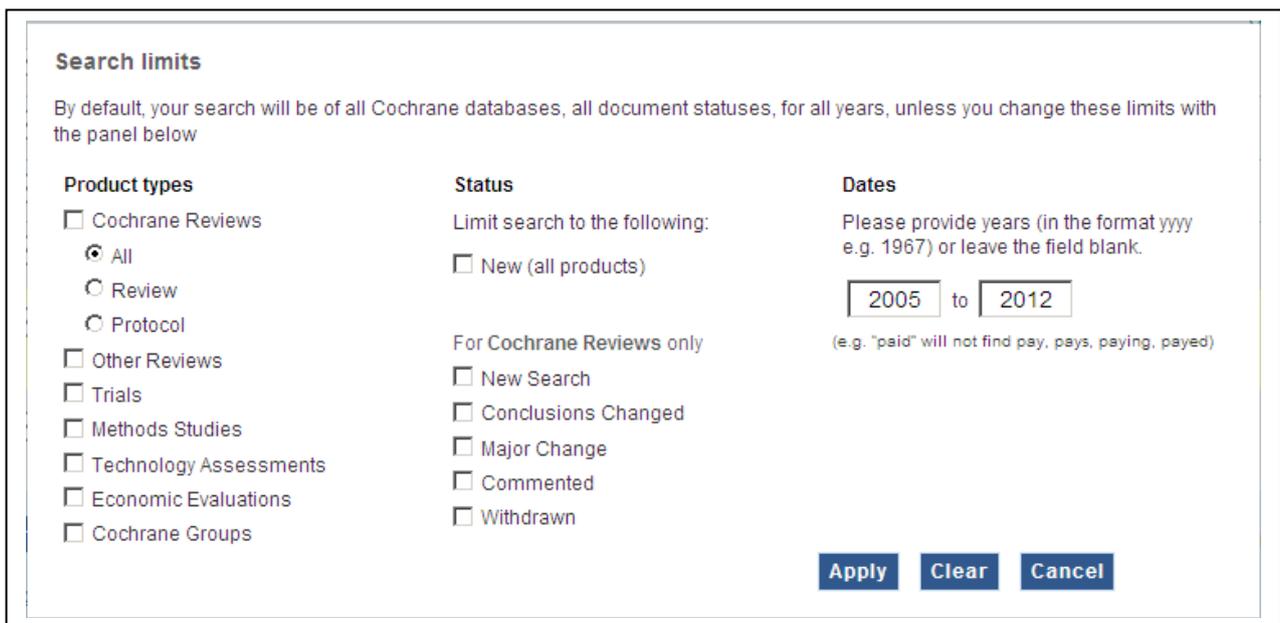
To apply limit to your search total, click on  as shown in the screenshot below.



The screenshot shows the Search Manager interface with the following search criteria:

Criteria ID	Search Term	Limit Icon	Count
#3	cognitive stimulation	None	1105
#4	cognitive behav* therap*	None	8343
#5	MeSH descriptor: [Dementia] this term only	m	1103
#6	MeSH descriptor: [Alzheimer Disease] this term only	m	1907
#7	MeSH descriptor: [Cognitive Therapy] this term only	m	3919
#8	(#1 or #2 or #5 or #6) and (#3 or #4 or #7)	Limit Icon	692

You will then see the **Search limits** screen as shown below. Select your limits and click **Apply** and in **Search Manager** click **Go**. You'll notice that your result is reduced from 692 to 137. In this example, the result is limited to review from 2005 – 2012.



Search limits

By default, your search will be of all Cochrane databases, all document statuses, for all years, unless you change these limits with the panel below

Product types

- Cochrane Reviews
- All
- Review
- Protocol
- Other Reviews
- Trials
- Methods Studies
- Technology Assessments
- Economic Evaluations
- Cochrane Groups

Status

Limit search to the following:

- New (all products)

For Cochrane Reviews only

- New Search
- Conclusions Changed
- Major Change
- Commented
- Withdrawn

Dates

Please provide years (in the format yyyy e.g. 1967) or leave the field blank.

2005 to 2012

(e.g. "paid" will not find pay, pays, paying, payed)

Apply **Clear** **Cancel**



The screenshot shows the Search Manager interface with the following search criteria after applying limits:

Criteria ID	Search Term	Limit Icon	Count
#4	cognitive behav* therap*	None	8343
#5	MeSH descriptor: [Dementia] this term only	m	1103
#6	MeSH descriptor: [Alzheimer Disease] this term only	m	1907
#7	MeSH descriptor: [Cognitive Therapy] this term only	m	3919
#8	(#1 or #2 or #5 or #6) and (#3 or #4 or #7) from 2005 to 2012, in Cochrane Reviews (Reviews only)	Limit Icon	137

Viewing, Printing and Saving Search Results

To view the result, click on total result which in this case is 137. You will then see the list of results as with Cochrane Reviews selected by default. You can change this to results in any of the other databases in Cochrane Library such as Other Reviews, Trials etc. These are shown in the screenshot below.

The screenshot displays the search results interface. On the left, a sidebar contains a list of filters: 'Cochrane Reviews (137)', 'All', 'Review', 'Protocol', 'Other Reviews (0)', 'Trials (0)', 'Methods Studies (0)', 'Technology Assessments (0)', 'Economic Evaluations (0)', 'Cochrane Groups (0)', 'All', and 'Current Issue'. Below these are colored buttons for 'Me' (Methodology), 'Dg' (Diagnostic), 'Ov' (Overview), 'Cc' (Conclusions changed), 'Ns' (New search), 'Mc' (Major change), 'Up' (Update), 'Wd' (Withdrawn), and 'Cm' (Comment). The main content area shows a summary: 'There are 137 results from 7481 records for your search on #8 - (#1 or #2 or #5 or #6) and (#3 or #4 or #7) from 2005 to 2012 in Cochrane Reviews in the strategy currently being edited'. It includes pagination for 'Pages 1 - 25 | 26 - 50 | 51 - 75 | 76 - 100 | 101 - 125 | Next' and a 'Sort by' dropdown menu set to 'Relevance'. Below this are search results for 'Cognitive stimulation to improve cognitive functioning in people with dementia', 'Cognitive rehabilitation and cognitive training for early-stage Alzheimer's disease and vascular dementia', 'Cholinesterase inhibitors for dementia with Lewy bodies, Parkinson's disease dementia and cognitive impairment in Parkinson's disease', 'Light therapy for managing cognitive, sleep, functional, behavioural, or psychiatric disturbances in dementia', and 'Functional analysis-based interventions for challenging behaviour in dementia'. Each result includes the authors and a date, and a 'Review' button is present for each.

The default **Sort** option is Relevance, but you can choose to sort alphabetically or by date.

A close-up of the 'Sort by' dropdown menu. The dropdown is open, showing three options: 'Relevance' (selected), 'Alphabetical', and 'Date'.

To save results, tick the boxes and click on **Export Selected** at the bottom of the screen. You can also select and export all. The result can then be saved to disc/ memory stick or printed.

To save the Search Strategy, click on **Save Strategy** as shown below, give it a name and save.

The screenshot shows the Search Manager interface. It features three search strategy components: '#7 MeSH descriptor: [Cognitive Therapy] this term only' with 3919 results, '#8 (#1 or #2 or #5 or #6) and (#3 or #4 or #7) from 2005 to 2012, in Cochrane Reviews (Reviews only)' with 137 results, and '#9' with an 'Error' message. Below these is a 'Clear Strategy' button and a 'View tips for Search Manager' link. At the bottom, there is a 'Save strategy' section with a text input field for 'Strategy Name' and a 'Save Strategy' button. An arrow points to the 'Save Strategy' button.

Setting Alert

After saving your search strategy, go to Strategy Library and tick the Alerts box for your chosen strategy as shown in the screenshot below:

▼ Strategy Library (17)						
	Name				Last saved	Alerts
1	Dementia and Psychiatric Nursing				02/11/2012 11:04	<input checked="" type="checkbox"/>
2	Obesity and Children				25/10/2012 10:26	<input type="checkbox"/>
3	Dementia and Cognitive Behaviour Therapy, Oct 12				02/10/2012 16:04	<input type="checkbox"/>
4	Dementia and Cognitive Behaviour Therapy				02/10/2012 15:01	<input type="checkbox"/>

Sharing Search Result

You can share your saved searches via an-email link. To do so, go to 'Strategy Library' and click on and then 'Send link via email' as shown below:

▼ Strategy Library (17)						
	Name				Last saved	Alerts
1	Dementia and Psychiatric Nursing				02/11/2012 11:04	<input checked="" type="checkbox"/>
2	Obesity and Children				25/10/2012 10:26	<input type="checkbox"/>
3	Dementia and Cognitive Behaviour Therapy, Oct 12				02/10/2012 16:04	<input type="checkbox"/>
4	Dementia and Cognitive Behaviour Therapy				02/10/2012 15:01	<input type="checkbox"/>

Navigating and interpreting a systematic review

You can follow the link at the bottom of each review to view various sections such as figures, tables, references etc.

You can also use 'Articles Tools', on the right hand side of the review to save, export, email, submit comments etc. These are shown in the screenshot below:

Intervention Review

Cognitive stimulation to improve cognitive functioning in people with dementia

Bob Woods^{1*}, Elisa Aguirre², Aimee E Spector³, Martin Orrell⁴

Database Title: The Cochrane Library

Editorial Group: Cochrane Dementia and Cognitive Improvement Group

Published Online: 15 FEB 2012

Assessed as up-to-date: 6 DEC 2011

DOI: 10.1002/14651858.CD005562.pub2

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Additional Information (Show All)

How to Cite | Author Information | Publication History

Abstract | Article | Figures | Tables | References | Other Versions | Cited By

View Full Article (HTML) | Summary (63K) | Standard (1028K) | Full (1212K)

SEARCH

Title, Abstract, Keywords

Search >

Medical Terms (MeSH) >

Search Manager >

ARTICLE TOOLS

- Save to My Profile
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Following up primary references

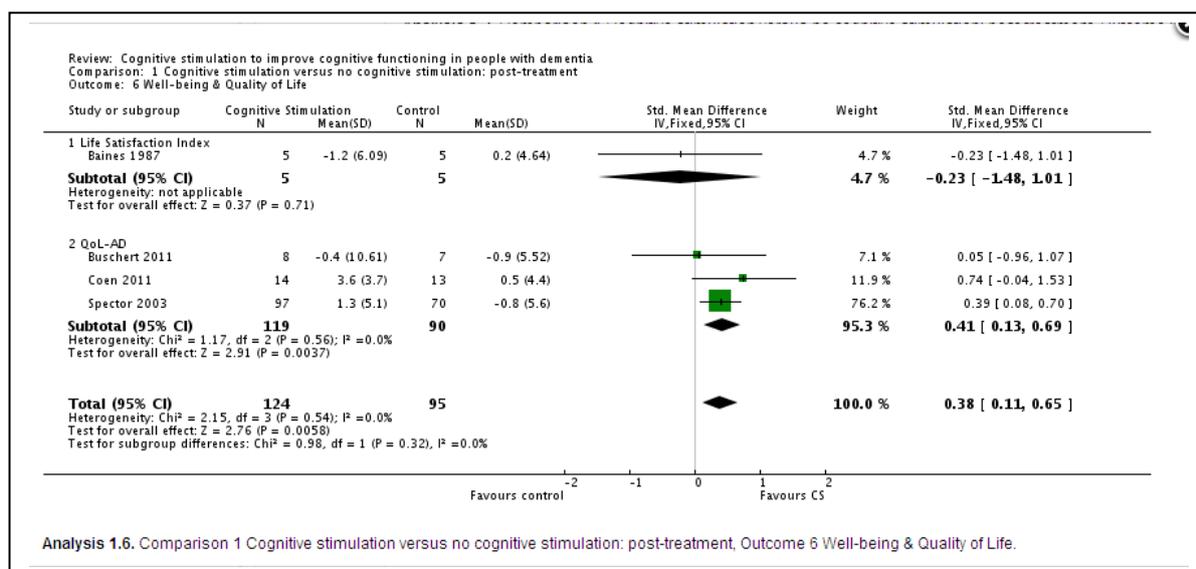
If you go to **References** and click on **Links** at the bottom of the article reference you may be taken to a further link providing you with title and abstract information (note, not full text) for that primary reference in **PubMed** (a freely available online version of the Medline database) and in other sources.

Interpreting graphs

A key component of the systematic review is the statistical method of combining the results of different primary studies that look at the same intervention. This is known as meta-analysis and the results of a meta-analysis are usually shown in one or more **odds ratio diagrams** or **Weighted Means Difference**.

At first glance they can be rather frightening but you do not need an in-depth understanding of statistics to be able to interpret them.

The **Weighted Means Difference** diagram below looks at the outcomes of well being and quality of life of people with dementia who have received cognitive stimulation to improve cognitive functioning and those who haven't received this intervention.



The weighted means for each individual trial is shown by a blue square. The horizontal line through it represents the **confidence interval** for that result.

The meta-analysis result is shown by the black diamond the width of which represents the confidence interval.

Confidence intervals are usually shown as 95%, representing the range in which we can be 95% confident that the real result of the study lies.

The vertical line through the diagram at the ratio of 0 - 1 is known as the **line of no effect**. Anything crossing this line cannot show whether the intervention is any better or worse than the control. But results that fall to the left of the line indicate **less** of the outcome in the experimental (treatment) group and results to the right of the line indicate **more** of the outcome in the treatment group. Just be aware that more of an outcome is not necessarily a good thing, i.e. when you are measuring mortality.