



Review Manager 5.3 Tutorial

Updated June 2014

Welcome to the RevMan Tutorial. This tutorial is designed to give Cochrane review authors an introduction to the process of writing a Cochrane systematic review of a healthcare intervention using RevMan.

The tutorial does not provide all the information necessary to write a Cochrane review, and does not address other types of Cochrane systematic reviews, such as reviews of diagnostic test accuracy studies or overviews of reviews. For detailed guidance on how to conduct a Cochrane systematic review of an intervention, please refer to the *Cochrane Handbook for Systematic Reviews of Interventions*, available from the RevMan Help menu.

Later parts of this tutorial rely on activities completed in the earlier sections, so we recommend you start from the beginning. If you wish to skip ahead, click on the relevant section in the Contents list. Completing the entire tutorial takes about 3 to 4 hours.

If you have technical questions regarding RevMan software, please contact the Cochrane Informatics and Knowledge Management Department (IKMD) at <http://tech.cochrane.org/>. Other questions related to preparing protocols or reviews in RevMan should be directed to the relevant Cochrane Review Group.



About this tutorial

The tutorial for RevMan 5 was originally developed by staff at the Australasian Cochrane Centre in 2008, with the help of the Thai Cochrane Network and the Information Management System team (now IKMD). The tutorial was revised in June 2014 to incorporate new features of RevMan 5.3. Please note that the results reported in this tutorial are fictional and were created by the authors for teaching purposes only. Comments or corrections are welcome, please email cochrane@monash.edu.

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PART 1 – Getting started


Opening your review


All Cochrane reviews are stored in Archie, The Cochrane Collaboration's central server for managing documents and contacts details. When you have registered a review with a Cochrane Review Group, they will set up a user account for you in Archie. To work on your review, you will need to find your review online in Archie and check it out into RevMan using the **My Reviews**  button on the toolbar. Doing this opens a new window which provides information on the location of your reviews and what the next task for your review is. In this window you can check a review out by selecting the title and pressing the **Check Out**  button.

Before going ahead it is important to make sure that RevMan is currently in 'Standard' mode rather than 'Non-Cochrane' mode. 'Non-Cochrane' mode is a preference that allows users to specify that they are using RevMan to author reviews that will not be published in *The Cochrane Library*. In 'Non-Cochrane' mode, all Cochrane-specific functions like check in/out and connection settings to Archie are absent from the interface. To complete this tutorial you need to be in 'Standard' RevMan mode.

1. From **Tools** menu on the toolbar, select **Preferences**, which will open the **Preferences** window.
2. Under **User mode** on the **General** tab, confirm that the **Non-Cochrane mode** option is NOT checked.
3. If the **Non-Cochrane mode** option is checked, uncheck it and press **OK**. A warning will appear indicating that "Not all changes may take effect until you restart the program". Click **OK**, then **Exit** out of RevMan and restart it.
4. If the **Non-Cochrane mode** option is NOT checked, simply click **OK**.

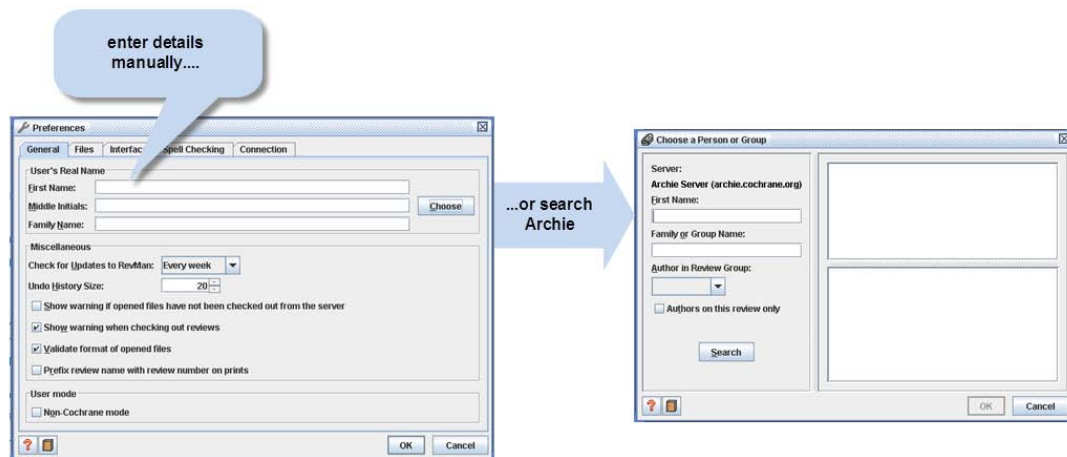
For this tutorial we will use a sample review called 'Caffeine for daytime drowsiness'. Instead of checking the review out of Archie, it has been provided as an additional file with RevMan.

1. From the **File** menu, select **Open**, or click the **Open** button  on the toolbar.
2. Find the folder where RevMan was installed on your computer. If you are using Windows and accepted the default installation location, this will be **C:\\Program Files (x86)\\Review Manager**. If you are using Mac OS or Linux, the tutorial files are copied to a subfolder of your home directory named 'RevMan tutorial'.
3. Open the **doc** folder, and then the **tutorial** folder.
4. Select the file 'Caffeine for daytime drowsiness.rm5'.
5. Click **Open**.

Note: It is possible to create a new review in RevMan by selecting **New** from the **File** menu, or clicking the **New** button  on the toolbar. Be aware that if you create a review yourself, you cannot check it into Archie or use it for publication in *The Cochrane Library*.

Setting up user details



If you will be using RevMan regularly on the same computer, you may wish to enter your user details (such as your name). RevMan will attach these user details to any editing done using track changes so that co-authors and editors can easily identify who has made the changes. Open your user details by selecting **Preferences** from the **Tools** menu. Enter your name directly or click **Choose** to find your details in Archie.

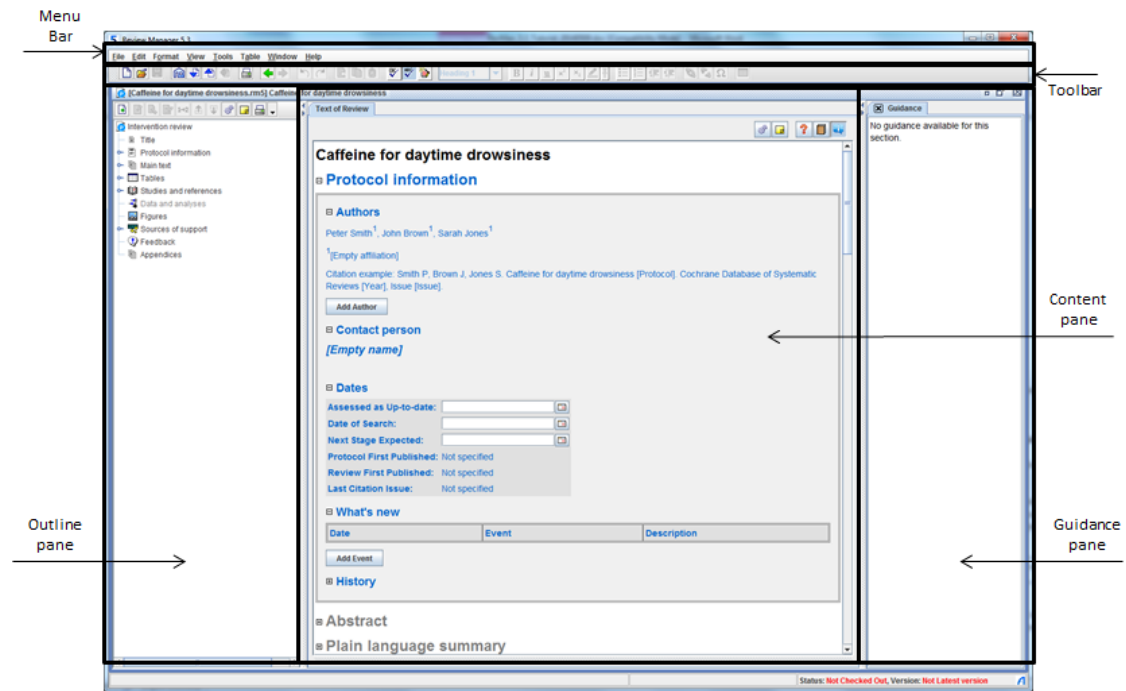




Note: You will need to set up RevMan access to Archie via the internet. In the **Preferences** window, open the **Connection** tab. Click the **Wizard** button to set up your connection, or enter your Archie user name and password directly and click the **Next** button to test the connection. You may need to enter proxy server details. Consult the RevMan **Help** or your local IT support for more information.

The RevMan 5.3 interface

When a review is open in RevMan, you will see there are three separate window panes that interact with each other as you navigate through the different sections of a review. The pane on the left hand side shows the outline of a review. This is referred to as the *outline pane*. The area in the middle shows all the information contained in a review. This is referred to as the *content pane*. The *content pane* will usually show the text of your review, but can also contain additional tabs for results, figures, etc. The area on the right hand side includes context-specific guidance from the Cochrane Reporting Standards (known as MECIR: Methodological Expectation of Cochrane Intervention Reviews). This is referred to as the *guidance pane*.



Note: You can switch the *guidance pane* off at any time by selecting the close button  at the top of the *guidance pane*. To switch the *guidance pane* back on, click the **Guidance** button  at the top right corner of the *content pane*.




In the *outline pane*, you can use the key icon  next to each heading to expand and collapse subheadings. In the *content pane*, use the  symbol.

RevMan allows you to change the appearance of the interface by selecting **Preferences** from the **Tools** menu and going to the **Interface** tab. The default **Look and Feel** of the interface is **Metal**. All screen captures presented in this tutorial display the **Metal** look and feel. It is also possible to set language and spelling options in the **Preferences** window.

By default, your new review is at the **protocol stage**, indicating that you are planning the methods for a review. Sections of a review that are not required at the protocol stage (but will be needed later for your completed review) appear as inactive (light grey) in both the *outline pane* and the *content pane*.


Note: You can tell the stage of a review by looking for the protocol  or review  icon at the top left of the *outline pane*.



When you undertake a Cochrane review, the protocol must be completed and submitted for publication before moving on to the review stage. For this tutorial, to convert the file from the protocol stage to review stage, use the following directions:


1. Click the **Properties** button  in the top-right of the *content pane*.
2. In the **Properties** window, select the **General** tab.
3. Note the automatically generated **Version Number** – this number will change each time the review is checked into Archie. Note that you do not need a separate **Review Number** unless your Review Group provides one.

4. Enter the **Version Description** 'First draft'. When choosing a version description, make sure it is brief and clearly indicates what's different about this draft, e.g. 'Edited by [your initials]' or 'Methods section complete'.
5. For the **Stage**, select **Full Review**.
6. Click **OK**. Note that all of the section headings of the review are now activated (there are no light grey section headings).


Saving a review

When you have finished working on a review from Archie, we recommend that you always save the review by checking it back into Archie using the Check In  button on the toolbar. This ensures the most recent version of your review is safely stored and can always be accessed from Archie by your co-authors and editors.

We recommend that you **do not** keep saved reviews on your computer, to avoid confusion with different versions. Be careful not to use a version of your review from your computer if a more recent version is available in Archie. If for some reason you do need to save a review to your computer, such as this tutorial review which is not from Archie, go to the **File** menu and select **Save As**, or click the **Save**  button on the toolbar. You can open a saved review by going to the **File** menu and selecting **Open**, or clicking the **Open** button  on the toolbar.

You can easily create a backup of your review file any time in Archie by clicking the Backup button  (when this button is pressed, RevMan checks in the review and checks it back out again). RevMan also creates automatic backups of your review. See the **Help** menu for information on retrieving a backup file.

Note: In the lower right hand corner of RevMan, there is an indicator pane showing when the current review is not checked out or is not the latest version.



Status: Not Checked Out, Version: Not Latest version 



Adding authors to a review

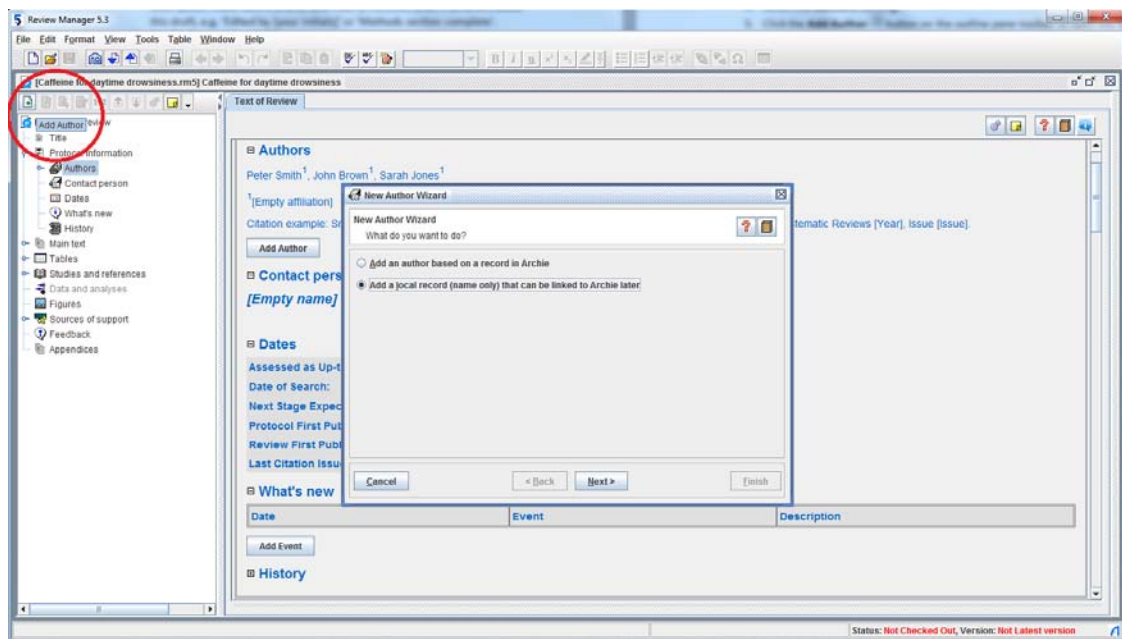
For a real review, your Review Group will add your name as an author of the review when they create the file, along with any known co-authors. You may wish to add additional authors later.


There are two ways to add authors to a review:


- **Add an author based on their record in Archie** – this option allows you to add authors who are already listed in the Archie database. You will need to have internet access and an Archie user account for this option.
- **Add a local record (name only) that can be linked to Archie later** – this option allows you to add authors that are not yet listed in Archie.

1. If not already visible, in the *content pane*, click the  icon next to the **Review information** heading to show further subheadings.
2. Click the  icon to open the **Authors** section. Note that three authors have already been added to this review.

3. In the *outline pane*, click the key icon  next to **Review information**.
4. Select the **Authors** heading.
5. Click the **Add Author**  button on the *outline pane* toolbar to open the **New Author Wizard**.
6. Select **Add a local record (name only) that can be linked to Archie later**. Click **Next**.
7. Enter your name in the **First Name** and **Family Name** fields.
8. Click **Finish**. You will now see your name listed next to the other authors of the review. Note that no affiliation is available for your name. Affiliations can only be added from records in Archie.




Note: Many of the functions in RevMan which involve selecting a button on the *outline pane* toolbar can also be achieved by right-clicking the sub-headings in the *outline pane* and selecting the function from the drop-down list. For example, rather than clicking the **Add Author**  button on the *outline pane* toolbar to open the **New Author Wizard**, you can also right-click the **Author** sub-heading and select **Add Author** from the drop-down list.



Under the author details in both the *outline* and *content panes* you will note that a **Contact person** can be specified for the review. By default, this is the first author, but another person (who may or may not be an author of the review) can be nominated by selecting the **Contact person** heading in the *outline pane* and clicking the **Edit Contact Person**  button on the *outline pane* toolbar. The contact person must be listed in Archie.

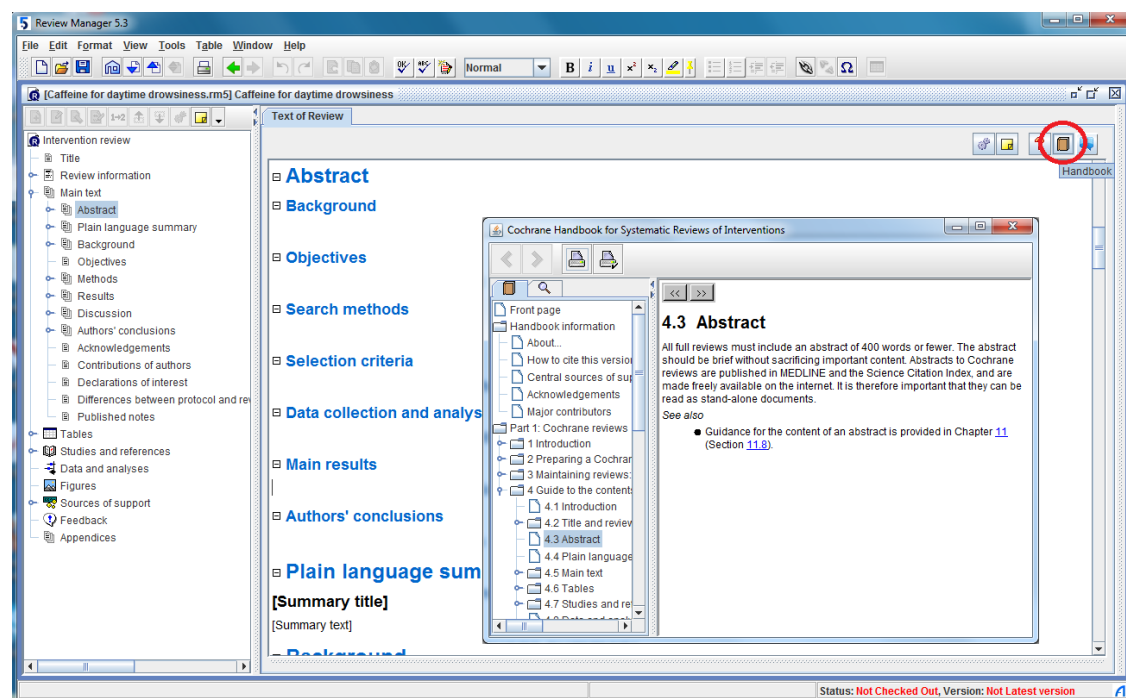
Note: To add new people to Archie or to make changes to contact details, please contact the Managing Editor of your Review Group.

Accessing the *Cochrane Handbook for Systematic Reviews of Interventions*

For detailed instructions on what to report in each section of your review, you can refer to the *Cochrane Handbook for Systematic Reviews of Interventions*. This can be

accessed from the **Help** menu, or by clicking the **Handbook**  button in the top right-hand corner of the *content pane*, which will open a new window that will allow you to browse through all sections of the Handbook. A particular section of the Handbook can be opened in the new window depending on which section of the **Main text** you are working on.



1. In the *outline pane*, if it is not already expanded, click the key icon  next to the **Main text** heading.
2. Click on the word **Abstract**.
3. In the *content pane*, click the **Handbook**  button (or right click and select **Handbook**). Note that the **Cochrane Handbook for Systematic Reviews of Interventions** window has opened at the section with guidance on what to write in the abstract of the review.
4. Close the **Cochrane Handbook for Systematic Reviews of Interventions** window.



PART 2 – Working with text







Adding text to a review


Text can be copied and pasted from a word processor document, imported as an html file or typed directly into RevMan.



1. In the *content pane*, if it is not already expanded, click the  icon next to the **Background** heading.
2. If not already expanded, click the  icon next to the **Description of the condition** heading. A blank line will open under the heading.

3. Click to place the cursor in the blank line and type “Daytime drowsiness is a common problem that affects productivity and quality of life.”

Formatting text





RevMan text formatting options are available from the toolbar, including bold , italics , underline , superscript , subscript , and highlighting text  similar to most other word processing software. You cannot change the font or type size, as these are standard for all Cochrane reviews.

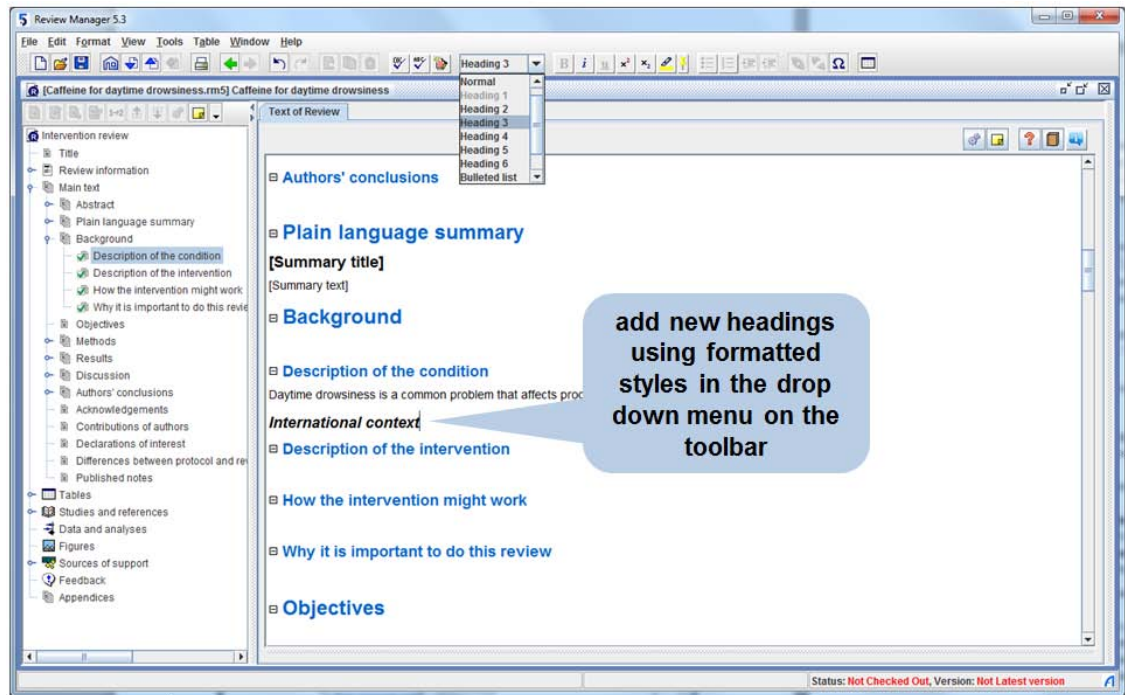
The **Insert Symbol** button  allows you to insert symbols into the text of the review, including in tables and author names. You can also insert a non-breaking space.

RevMan also allows bulleted  and numbered lists , including multi-level lists.

Making changes to headings





RevMan includes the standard headings for a complete Cochrane review, but new headings can be added and some standard headings can be deactivated.

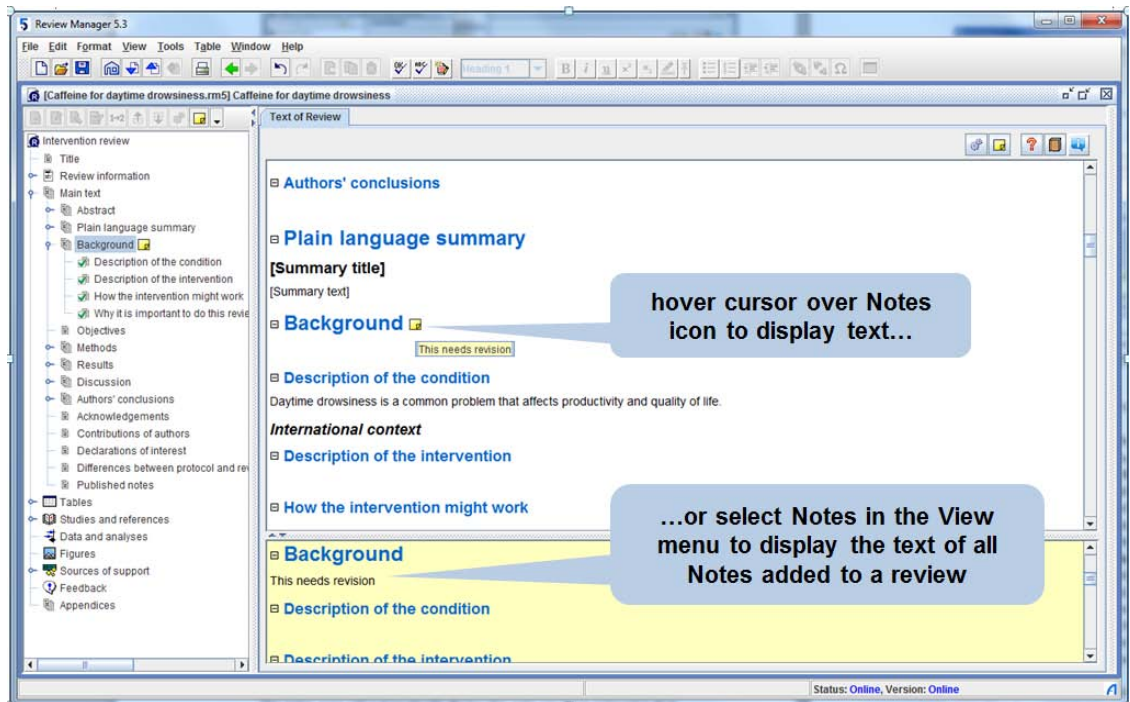
1. In the *outline pane*, click the key icon  next to **Main text** to reveal the subheadings.
2. Click the key icon  next to **Background**.
3. Any heading with the  icon is optional and can be deactivated. Right-click the **How the intervention might work** heading and select **Deactivate Heading** (alternatively, select the heading **How the intervention might work** then click the  button on the *outline pane* toolbar and select **Deactivate Heading** from the drop down menu).
4. Note that the heading appears deactivated (light grey) in the *outline pane* and the text of the heading has been removed from the *content pane*.
5. In the *content pane*, click to place the cursor at the end of the text in the **Description of the condition** section and press **Enter** to create a new line.
6. On the toolbar, you will see a drop-down box showing the text style currently in use. By default, text is in the **Normal** style. Click the drop-down arrow and select **Heading 3**.
7. Type the text ‘International context’. Note that formatting of Heading 3 is bold and italics.
8. Press **Enter** again. Note that the new blank line is in the **Normal** style again.



Adding notes

You can add notes to assist in drafting the review. These notes will not appear in the published version of the review.



1. In the *content pane*, make sure the cursor is still in the **Background** section.
2. Click the **Notes** button  on the *outline pane* toolbar (NOT the **Notes** button in the *content pane*). This will open the **Notes** window.
3. Enter a note, 'This text needs revision.' You will see the user details you entered in the **Preferences** window at the beginning of the tutorial appears at the bottom of the **Notes** window.
4. Click the **Close** button to save the note and close the window.
5. A yellow **Note** icon  appears next to the relevant heading in both the *content pane* and *outline pane*.
6. To see all the notes for a review while you are working, go to the **View** menu and select **Notes**. A separate window pane will appear below the *content pane* showing the notes for each section.
7. In the *content pane*, click to place the cursor back in the **Background** section. The notes area will automatically display the note you have entered in that section.
8. Click the down arrow icon  at the top left of the notes area to minimise it, or go to the **View** menu and select **Notes** to close the notes pane.
9. In the *content pane*, click the **Note** icon  to open the **Notes** window again.
10. Click **Delete** to delete the note.




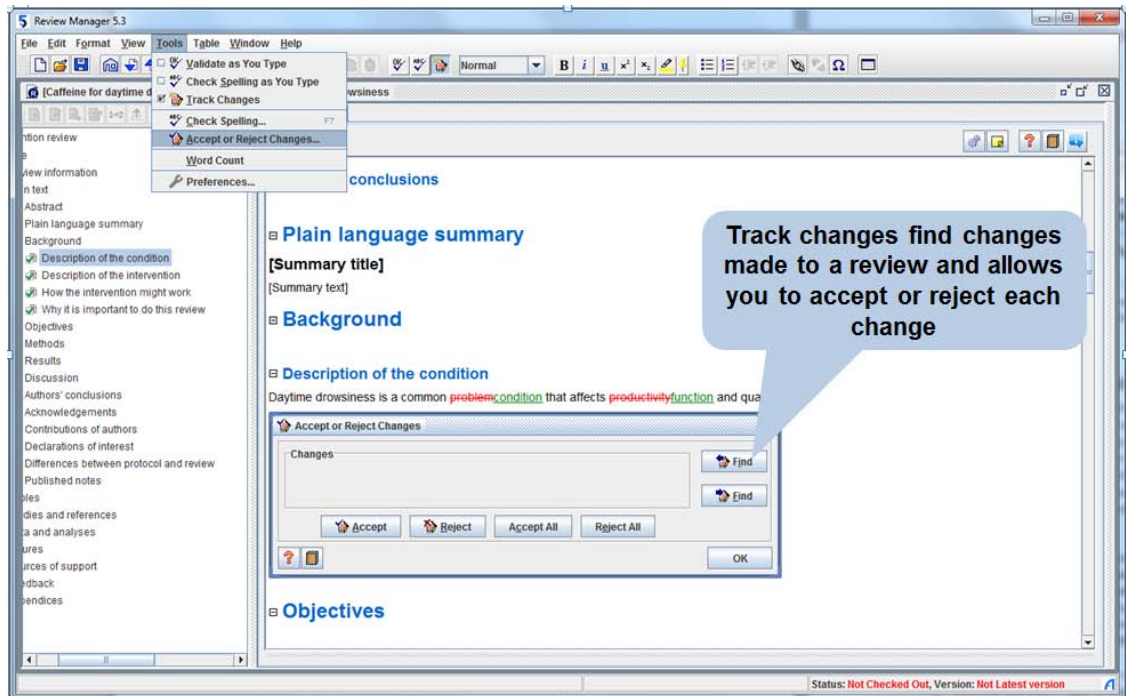
Note: You can delete all notes in the review by selecting **Global Edit** from the **Edit** menu on the toolbar, and checking **Globally delete notes**, then **OK**.

Tracking changes in the text

RevMan has a **Track Changes** system to help you manage editing in the text.

1. From the **Tools** menu, select **Track Changes**, or click the **Track Changes**  button on the toolbar. Note that the **Track Changes** button is now activated.
2. In the *content pane*, go to the **Background** section and replace the word 'problem' with the word 'condition'. The old text will appear in red with a line through it, and the new text will appear in green.
3. In the same section of the review, change the word 'productivity' to 'function'. Leave the cursor in the text after your changes.
4. From the **Tools** menu, select **Accept or Reject Changes**. This will open the **Accept or Reject Changes** window.
5. In the window you just opened, click the **Find** button with the arrow pointing left  to search backwards toward the beginning of your document.
6. The first change found will be the word 'function'. The word will be highlighted in the *content pane*. You may need to move the **Accept or Reject Changes** window out of the way to see the highlighted section of text. Click **Accept** to accept the change.
7. RevMan will automatically find the next change and highlight the relevant text. Click **Accept** again to accept the deletion of the word 'productivity'.
8. Reject the rest of the changes you made by clicking the **Reject All** button.
9. Click **OK**.
10. In the *content pane*, change the word 'problem' to 'condition' again.
11. Hover the mouse pointer over the change. A popup message will appear showing the user details and when the change was made.

12. Left-click and drag the cursor over both the added word and deleted word, then right click on the text you have selected and select **Accept Changes**.
13. Turn off the **Track Changes** feature by clicking the **Track Changes**  button on the toolbar.




Note: You can also accept all tracked changes in the review by selecting **Global Edit** from the **Edit** menu on the toolbar, and checking **Globally accept track changes**, then **OK**.

Checking your spelling

RevMan can either check your spelling as you type, or check all the spelling in your review at the one time.

1. From the **Tools** menu, select **Preferences**.
2. Select the **Spell Checking** tab.
3. Select which dictionaries you would like RevMan to use, including **UK**, **US** or **Canadian English**. You can select more than one dictionary if you wish.
4. Click **OK**.
5. In the *content pane*, create a spelling mistake by deleting an 'm' from the word 'common'.
6. Open the **Tools** menu and select the **Check Spelling** option. This will open the **Check Spelling** window.
7. Depending where your cursor was placed, RevMan may ask whether you wish to continue checking from the beginning of the document. Click **Yes**.
8. RevMan will highlight the spelling mistake and suggest 'common' as the correct spelling. Click **Change**.

Note: The **Check Spelling** tool cannot correct spelling errors in some sections of the review text, such as author's names and contact details or the **Data and Analyses** section.

9. A notice will appear to say that the spell check is complete. Click **OK**.
10. Click **OK** again to close the **Check Spelling** window.
11. To check spelling continuously while you type, go to the **Tools** menu and select **Check Spelling as You Type**, or click the **Check Spelling as You Type**  button on the toolbar.
12. Delete the 'm' from 'common' again, and click to place the cursor elsewhere in the text. The spelling mistake will be underlined in red.
13. To correct the word, right-click it and select the correct spelling from the options available.

PART 3 – Adding studies and references



There are two kinds of references that can be added to a review:


- **References to studies** – these are references to studies that have been either included or excluded from your review. A study can have more than one reference, for example if there has been more than one published paper, or if you have received additional information from the study author.
- **Other references** – these are any other sources you would like to cite in your review, such as background articles, methodological references, software, etc.

Adding studies to a review


When you are ready to add included and excluded studies to your review, you will need to create a Study ID for each study, and then add the associated references. For Cochrane reviews, the Study ID is usually the name of the lead author of the main published paper and the year of publication. If you have more than one reference with the same name and year, you can add a letter to the year to differentiate them (e.g. Morrocona 1998a, Morrocona 1998b).

In the *outline pane*, click the key icon  next to **Studies and references**.

1. Click the key icon  next to the **Reference to studies** section.
2. Select **Included studies** and click the **Add Study**  button on the *outline pane* toolbar. This will open the **New Study Wizard**.
3. Enter the **Study ID** 'Morrocona 1998' and click **Next**.
4. From the **Data source** drop-down list, choose **Published and unpublished data**. Click **Next**.
5. The year the study was conducted will appear by default as '1998'. Click **Next**.
6. If your study has an ID number, such as a trial registration number or document ID, you can enter it here by clicking the **Add Identifier** button, selecting an ID type from the drop-down list, and entering the ID.
7. Click **Next**.
8. Select **Add another study in the same section** and click **Continue**.
9. Repeat steps 3-8 and add the following studies to the tutorial review:
 - Norscafe 1998**
 - Oohlahlazza 1998**
 - Kahve-Paradiso 2002**
10. When you have added the details for the last study, select **Nothing** and click **Finish**.

11. In the *outline pane*, click the key symbol  next to **Included Studies** to see the new studies listed.

Adding references to a study

1. In the *outline pane*, select the **Morrocona 1998** study.
2. Click the **Add Reference**  button on the *outline pane* toolbar. This will open the **New Reference Wizard**.
3. By default, the Reference Type is set to Journal article (click the drop-down list to see the other options available). Click Next.
4. Enter the following details in the form provided (note that fields appearing in bold are mandatory):

Authors: Morrocona MM, Smith A, Jones FH

English title: The effects of caffeine on alertness: a randomised trial

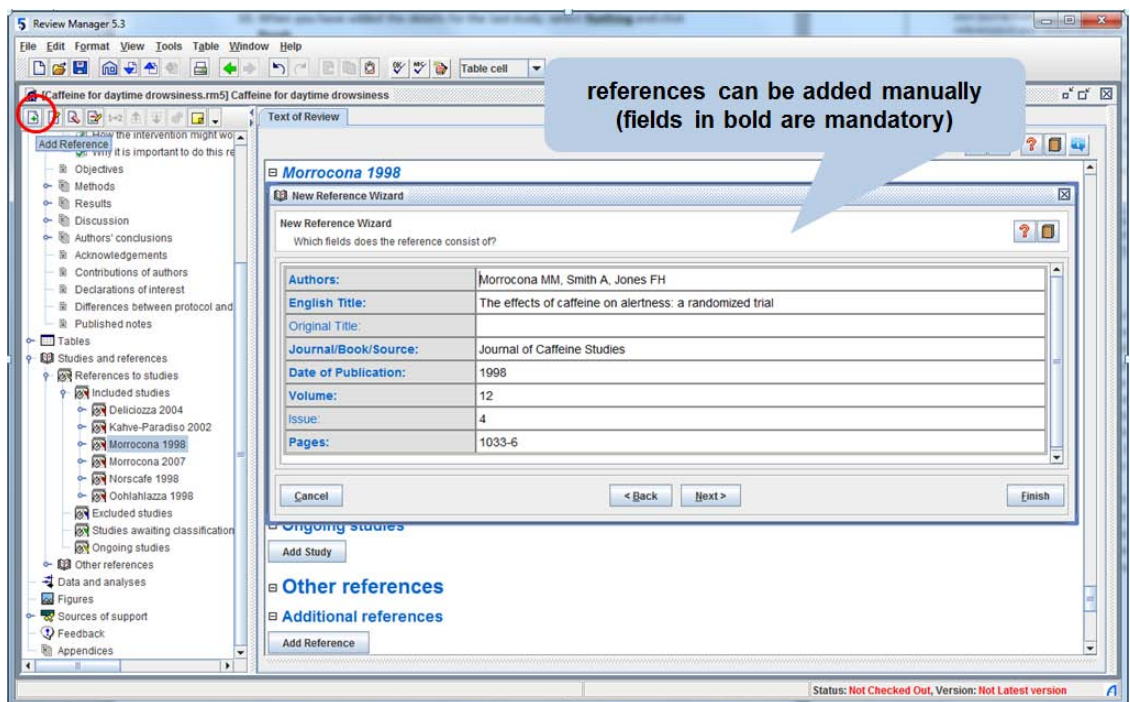
Journal/book/source: Journal of Caffeine Studies

Date of publication: 1998

Volume: 12


Issue: 4

Pages: 1033-6



Note: You can right-click in the **Journal/book/source** field and select **Choose from list...** to select your journal from a list of titles. If your journal does not appear on this list and a number of references in your review were published in this journal, you can right-click in the **Journal/book/source** field and select **Edit custom journals list...** which will open a text file where you can create a custom list of journal titles. This text file will need to be saved each time a new journal title is added to your custom list, and you can use this file to copy and paste the relevant journal title into the **Journal/book/source** field for each reference.

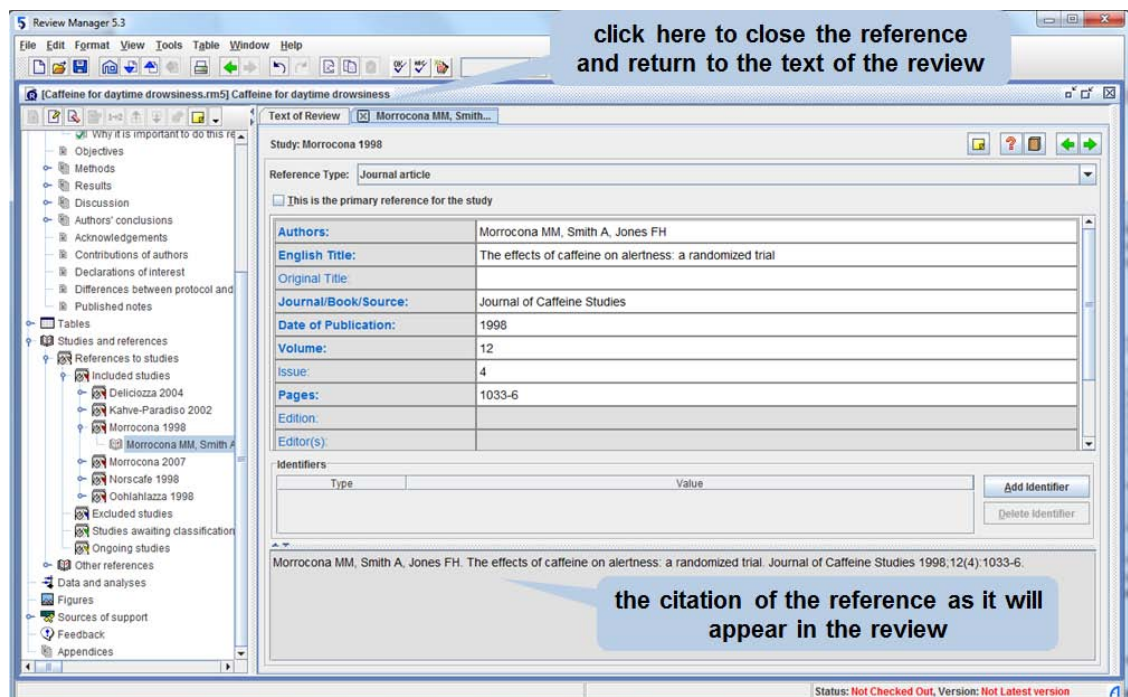
5. Click **Next**. As for a study, you will have the option to add an ID number for the reference, such as a MEDLINE reference number.

- Click **Finish**. The reference will now appear in the *content pane*. In the *outline pane*, click the key symbol  next to **Morrocona 1998** to see the new reference listed.

Note: To add an **Other reference** to your review, select **Additional references** in the *outline pane* and follow steps 2 to 6 above. You will need to give your reference a Reference ID, which should have the same format as a Study ID (first author and year of publication).

Editing an existing reference

- In the *outline pane*, double-click the reference listed under the **Morrocona 1998** study (or right-click and select **Edit Reference**). This will open a new tab in the *content pane* showing all the details you entered.
- Open the **Reference Type** drop-down box and change the type from 'Journal article' to 'Book'. Note that the fields have changed and some rows are now shaded. Shaded rows will not appear in your published review.
- Change the reference information to the following (you may need to scroll down to see some of these fields):
 - Authors:** Morrocona MM, Smith A, Jones FH
 - Journal/book/source:** The effects of caffeine on alertness
 - Date of publication:** 1998
 - Publisher Name:** Grinder Press
 - City of publication:** London
- At the bottom of the reference tab, note that the reference is displayed as it will appear in the published review. Note that this display changes as you make the changes to the reference. Check that the reference appears correctly.



5. Go to the tab header and click the button next to the first author's name to close the reference tab (**do not** click the button at the top right corner as this will close the review).

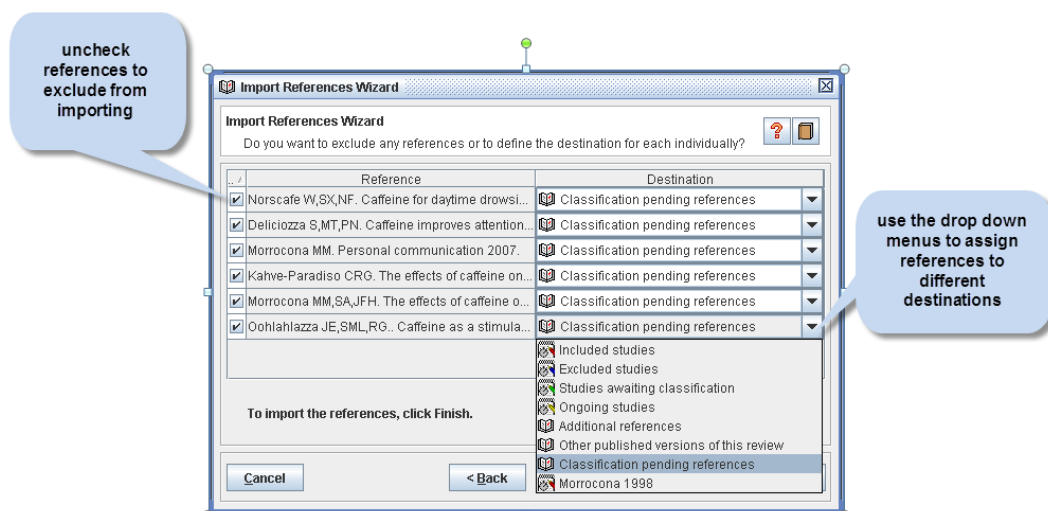
Note: For further details on how to enter different reference types, see the RevMan Help or the *Cochrane Style Guide*, available from the **Help** menu.


Importing references from a text file

If you have already entered your references in another program, you can avoid typing them in again by importing them from a text file. A sample text file has been provided with RevMan for this tutorial.

Note: For details on how to generate a text file, see the help files in your reference management software. RevMan can read text files created from most major reference management software using the RIS format. You may need to check that you are using a RevMan filter when exporting your references to a text file.









1. Go to the **File** menu and select **Import**, then **References**. This will open the **Import References Wizard**.
2. Click **Next**.
3. RevMan should automatically open the same folder we used to open the sample review: `c:\program files\review manager 5\doc\tutorial`. Select the file '**Study References.txt**' and click **Open**.
4. You will see a preview of the text file. Click **Next**.
5. By default, **RevMan Format** is selected as the format of the text file (other options include RIS, PubMed MEDLINE or Vancouver formats). Click **Next**.
6. By default, RevMan will save references to the **Classification pending references** section, under **Other References** in the *outline pane*. References in this section will not appear in the published review (for this reason they are shown in grey). Click **Next**.
7. If you wish, you can assign different locations for each individual reference, or exclude specific references. For this tutorial, leave the settings as they are and click **Finish**.

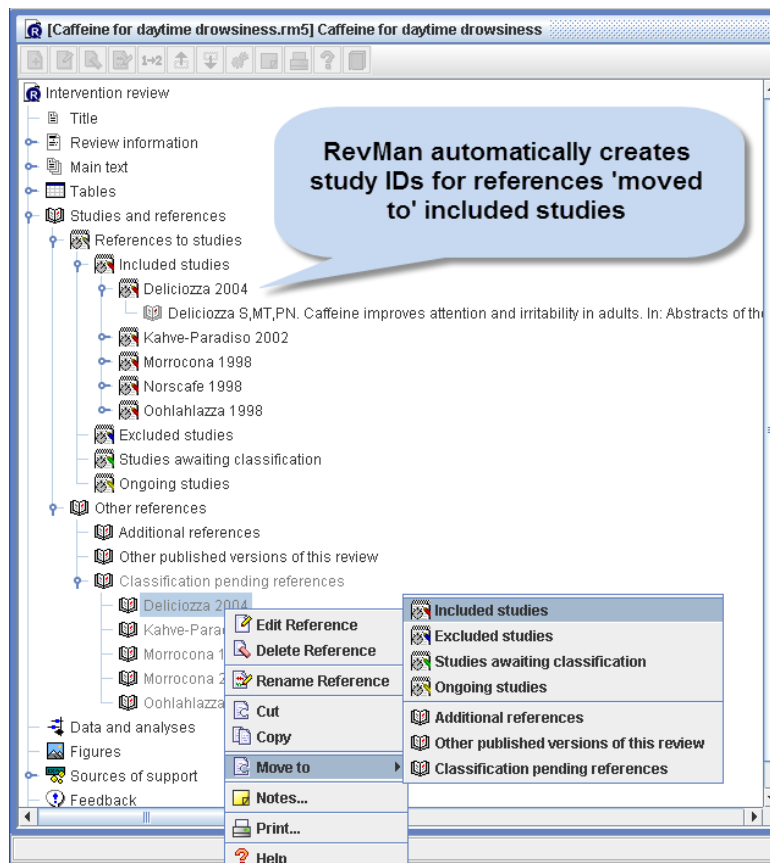


8. RevMan will report that 6 references have been imported. Click **OK**.
9. In the *outline pane*, use the key icons  to open the **Other references** section and then the **Classification pending references** section. You will see the references you imported.

Moving references


There are several ways to move references to the appropriate study.

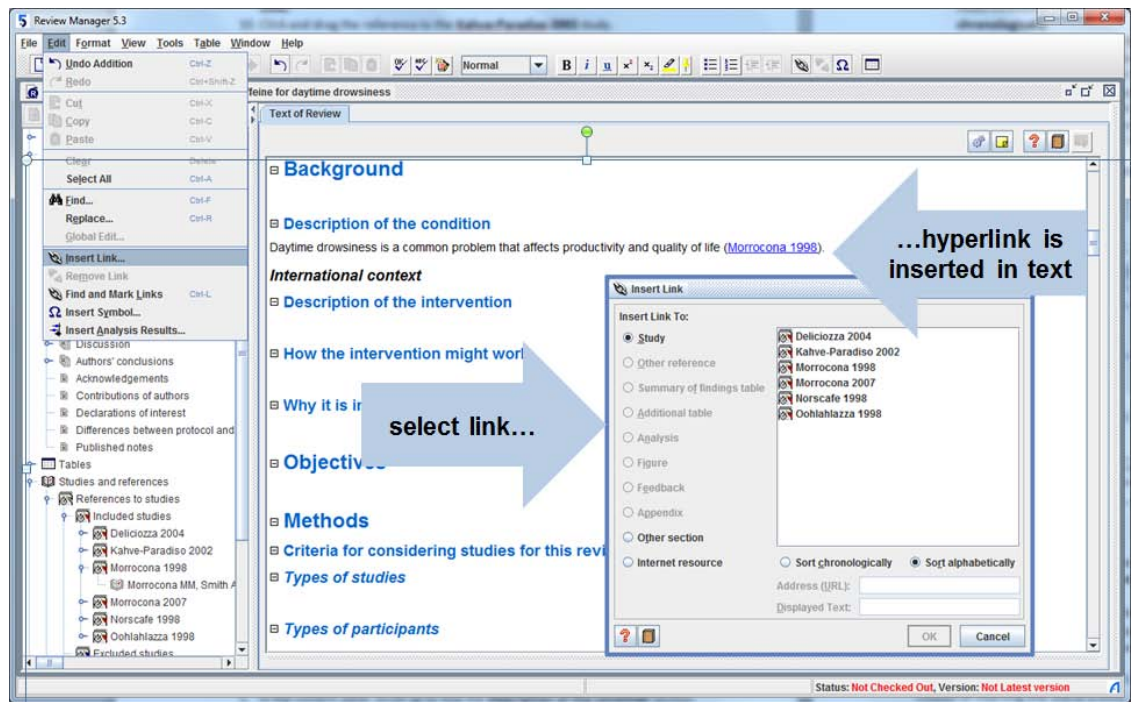
1. In the *outline pane*, in the **Classification pending references** section, select the reference **Norscafe 1998**.
2. From the **Edit** menu, select **Cut** or click the **Cut** button  on the toolbar.
3. Use the key icons  to open the **Included studies** section, and open the **Norscafe 1998** study. An [Empty] reference has been added here. To add a reference manually, you can edit the empty reference using the instructions in the previous section.
4. Select the **Norscafe 1998** study.
5. From the **Edit** menu, select **Paste**, or click the **Paste** button  on the toolbar.
6. The reference will be deleted from the **Classification pending references** section and added to the **Norscafe 1998** study. Note that the [Empty] reference has gone.
7. Go to **Classification pending references** and right-click **Deliciozza 2004**.
8. Select **Move to**, then **Included studies**. As there was no study with a name matching the reference, RevMan will automatically create a new study in the **Included studies** section with the ID **Deliciozza 2004**.
9. Go to the **Classification pending references** section and select **Kahve-Paradiso 2002**.
10. Click and drag the reference to the **Kahve-Paradiso 2002** study.
11. Repeat step 10 to move the remaining references to the corresponding studies. Note that both the imported Morrocona 1998 and Morrocona 2007 references can be moved to the **Morrocona 1998** study.
12. In the *outline pane*, click the key icons  to open the **Included studies** section, and then open the **Morrocona 1998** study.
13. Select the first reference and double-click to open the reference tab.
14. In the *content pane*, check the **This is the primary reference for the study** box.
15. In the *outline pane*, note that the book icon beside the primary reference appears in black , and the icons beside the other references are grey .
16. In the content pane, note that clicking the green arrows   enables you to switch between the edit screens for each reference for a particular study.



Adding links to references in the text

Rather than typing citations in the text or including footnotes, RevMan allows you to include active hyperlinks to references in the text of your review.


1. In the *content pane*, scroll up to find the **Description of the condition** section.
2. Click to place the cursor after the word 'life'.
3. From the **Edit** menu, select **Insert Link**, or click the **Insert Link**  button on the toolbar. This will open the **Insert Link** window.
4. Note that by default the studies are listed in alphabetical order, but can be listed chronologically (i.e. by year of publication) by selecting **Sort chronologically**.
5. From the list, select the study **Morrocona 1998**. Note that you can use this same method to link to included and excluded studies, figures, tables, sections of the review text and external web links.
6. Click **OK**. You will see a blue hyperlink to the reference appear in the text. This link will be active after the review is published in *The Cochrane Library*.
7. Add a space before the link and parentheses () before and after the link, so that it appears as "...quality of life ([Morrocona 1998](#))."



Note: You can insert more than one link in the text at a time. To do this, follow steps 1-6 above, but at step 5, hold the 'Shift' key down on your keyboard before selecting the study links you want to insert in the text.

Removing a link

To remove a link you have already inserted in a review, you can either delete it as you would any other text, or use the **Remove Link** feature.

1. In the *content pane*, click to place the cursor in the link to **Morrocona 1998**.
2. Click the **Remove Link**  button on the toolbar, or right-click and select **Remove Link**. Note that the text is no longer blue.

Adding multiple links automatically

Instead of inserting one link at a time, RevMan can create all your links automatically by searching through the sections of selected text to identify studies and other references.

1. In the *content pane*, select the sentence in the **Description of the condition** section, including the text '(Morrocona 1998)'.
2. From the **Edit** menu, select **Find and Mark Links**. RevMan will search the selected text and re-create the blue reference link.
3. It is also possible to search the whole review and create any links found. From the **Edit** menu, select **Global edit**. Check **Globally find and mark links**, then select **OK**. RevMan will search the whole review (although in this case, no additional links will be found).



Note: When using either the **Globally find and mark links** or **Find and Mark Links** tools, links will not be created in areas where this is not appropriate, such as the Abstract.

PART 4 - Tables

Now that you have included references to studies in your review, you can add a description of each study. This is done in the text of the review, and also in two standard tables: the **Characteristics of included studies** table and **Risk of bias** table.

Characteristics of included studies table

The details of each study, such as the methods, participants, interventions and outcomes, should be described in the **Characteristics of included studies** table.

1. In the *outline pane*, use the key icon  to expand the **Tables** heading, then the **Characteristics of studies** heading and the **Characteristics of included studies** heading. You will see a list of the studies you have created.
2. Select the **Deliciozza 2004** study.
3. In the *content pane*, you will see the same study shown. If it is not already expanded, click the  icon next to **Deliciozza 2004** to show the **Characteristics of included studies** table.
4. Type or copy and paste the following text into the characteristics table:



Methods	Randomised controlled trial.
Participants	80 participants (40 intervention, 40 control) who regularly used caffeine to improve alertness, fatigue and irritability, aged > 18 years.
Interventions	Intervention: 100mg cup of coffee. Control: 100mg cup of decaffeinated coffee.
Outcomes	Fatigue (VAS 0-100, lower score = improvement) Irritability (Irritability Negative Affectivity Subscale (INAS) 1-50, lower score = improvement) Alertness (reaction time, lower score = improvement) Sleepiness (C-Esta Sleepiness Scale) Headache
Notes	Sources of funding not stated.

5. In the *outline pane*, select the **Kahve-Paradiso 2002** study.
6. Type or copy and paste the following text into the **Characteristics of included studies** table:

Methods	Quasi-randomised controlled trial.
Participants	132 participants (65 intervention, 67 control) who regularly worked night and days shifts and drank 5 cups of coffee or tea per day, aged > 18 years.
Interventions	Intervention: 100mg cup of coffee. Control: 100mg cup of decaffeinated coffee.
Outcomes	Alertness (reaction time, lower score = improvement) Fatigue (VAS 0-100, lower score = improvement) Drowsiness (VAS 0-100, lower score = improvement) Irritability (Irritability Negative Affectivity Subscale (INAS) 1-50, lower score = improvement) Sleepiness (C-Esta Sleepiness Scale)
Notes	Sources of funding not stated.

Risk of bias table

Risk of bias tables are used to describe the methods used in each study, and whether the results are at risk of bias. For information on assessing this risk, see the *Cochrane Handbook for Systematic Reviews of Interventions*, available from the **Help** menu.

1. In the *content pane*, under the **Characteristics of included studies** table, find the **Risk of bias table** heading (you may need to click the  icon).
2. Click the **Properties**  icon next to the **Risk of bias table** heading.
3. You will see some items have a tick symbol next to them, indicating that they are included in the table by default.
4. For **Blinding of outcome assessment** and **Incomplete outcome data**, RevMan allows you to add separate information for each outcome or group of outcomes.
5. Select **Blinding of outcome assessment** and click the **Add** button next to the **Outcome Group** list.
6. Put the cursor in the first row of this list and delete the default text, 'All outcomes', and enter 'Self-reported outcomes'.
7. Repeat step 6 for the second row in this table and enter 'Objective outcomes'.
8. Click **OK**.
9. In the *content pane*, the **Risk of bias table** will now include separate rows on **Blinding of outcome assessment** for the two specified outcome types.

 Risk of bias table 

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Unclear risk	
Allocation concealment (selection bias)	Unclear risk	
Blinding of participants and personnel (performance bias)	Unclear risk	
Blinding of outcome assessment (detection bias) Self-reported outcomes	Unclear risk	
Blinding of outcome assessment (detection bias) Objective outcomes	Unclear risk	
Incomplete outcome data (attrition bias)	Unclear risk	
Selective reporting (reporting bias)	Unclear risk	
Other bias	Unclear risk	
Footnotes	Low risk Unclear risk High risk	



10. Using the information in the table below about the risk of bias in **Deliciozza 2004**, set each of the drop-down boxes for the six domains to **Low risk**, **High risk** or **Unclear risk** and type or copy and paste the corresponding text into the **Support for judgement** column.

Bias	Authors' judgement	Support for judgement
Random sequence generation (selection bias)	Low risk	Quote: "The allocation sequence was generated from a table of random numbers."
Allocation concealment (selection bias)	Unclear risk	Quote: "Treatment allocation was concealed in opaque envelopes." Comment: Not reported whether the

		envelopes used to allocate participants were sealed and sequentially numbered.
Blinding of participants and personnel (performance bias)	Low risk	Quote: "Participants received either coffee or decaffeinated coffee in a white mug, and did not know which drink they had received."
Blinding of outcome assessment (detection bias) Self-reported outcomes	Low risk	Comment: Self-reported outcomes were measured by participants who were blind to treatment allocation.
Blinding of outcome assessment (detection bias) Objective outcomes	High risk	Quote: "Alertness was measured by an assessor who knew which intervention participants received."
Incomplete outcome data (attrition bias)	Low risk	Quote: "All participants completed each outcome assessment."
Selective reporting (reporting bias)	Unclear risk	Comment: Without a trial protocol it is unclear whether any outcomes were measured but not reported based on the results.
Other bias	Low risk	Comment: No other sources of bias identified.

Characteristics of excluded studies


Studies identified in your search that do not meet the inclusion criteria of the review may be listed under **Characteristics of excluded studies**, along with the reason each study was excluded. You do not need to list every study identified by your search, but it is useful to list those which might appear to readers to meet your inclusion criteria.

1. In the *outline pane*, select **Characteristics of excluded studies**.
2. Click the **Add Study**  button on the *outline pane* toolbar and enter the new study 'Horton 1988'. Click **Next**.
3. Select **Published data only (unpublished not sought)**, and click **Next**.
4. Accept '1988' as the year the study was conducted, and click **Next**.
5. Click **Next** without adding any identifiers.
6. Accept '**Nothing**' as your next action, and click **Finish**. In the *content pane*, you will see the Excluded studies section and the study you have created.
7. In the *outline pane*, click the key icon  next to **Characteristics of excluded studies**.
8. Select the new study **Horton 1988**. In the *content pane*, you will see a table under this study with the heading **Reason for exclusion**.
9. In the table, enter the text, 'Both intervention and control groups received caffeine.'

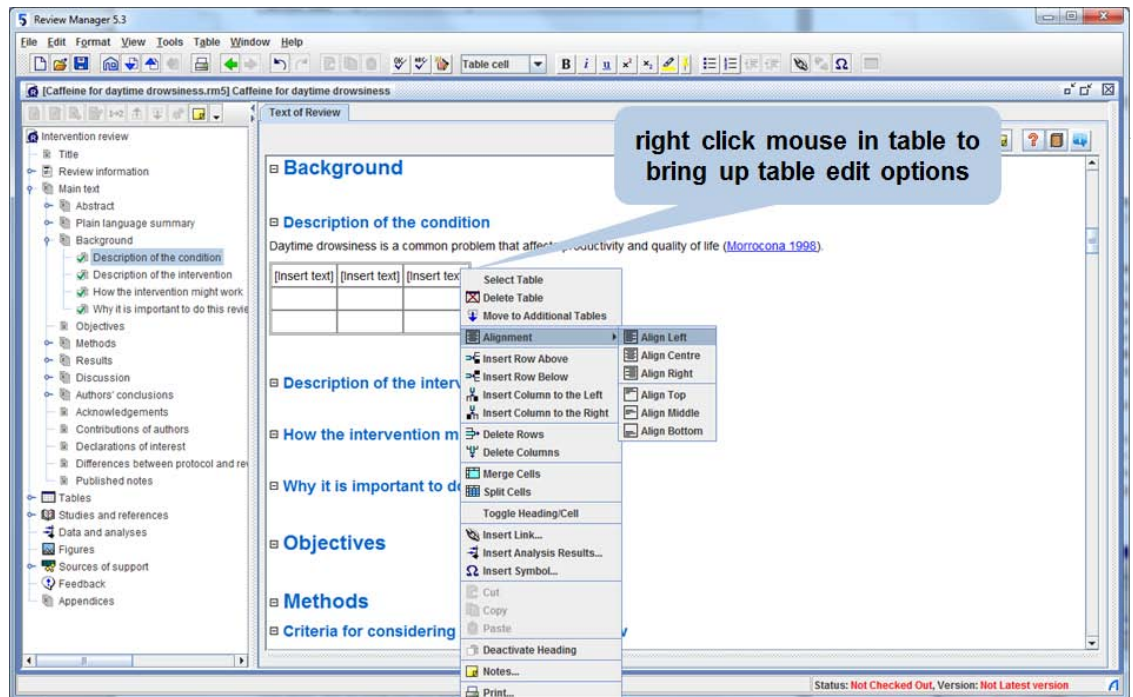
Additional tables

Additional information can be included in table format either in the text of the review, in an appendix or as an **Additional table**.



To add a table into the text of the review:

1. In the *content pane*, scroll up to the **Background** section and place the cursor in the **Description of the condition** section.
2. Click the **Insert Table** button  on the toolbar. A 3x3 table will be created.
3. Right-click the top left cell. Note the table edit options.

4. Select **Toggle Heading/Cell**. The selected cell will be shaded, and any text entered will appear in bold. Text can now be entered directly into the table.



To add an **Additional table** that will appear at the end of the published review:

1. In the *outline pane*, under the **Tables** heading, select **Additional tables**.
2. Click the **Add Table** button  on the *outline pane* toolbar. This will open the **New Additional Table Wizard**.
3. Enter the title, 'Decaffeinated coffee: chemical information'.
4. Click **Next**.
5. Accept **Create the table using RevMan's table editor** as your next action, and click **Next**.
6. Accept the default number of rows and columns and click **Finish**. In the *content pane*, you will see the table in the **Additional tables** section. You can now enter text directly into the table.
7. In the *outline pane*, click the key icon  to see the new table listed under **Additional tables**.

Note: Tables created in another program (e.g., Microsoft Word) can be copied and pasted into RevMan. To do this, you need to copy the table to the clipboard in the other program (e.g., in Microsoft Word, highlight the table and click 'Copy', then in RevMan, repeat steps 1-4 above and at Step 5, select **Paste in table copied from another program**.


PART 5 - Data and analyses

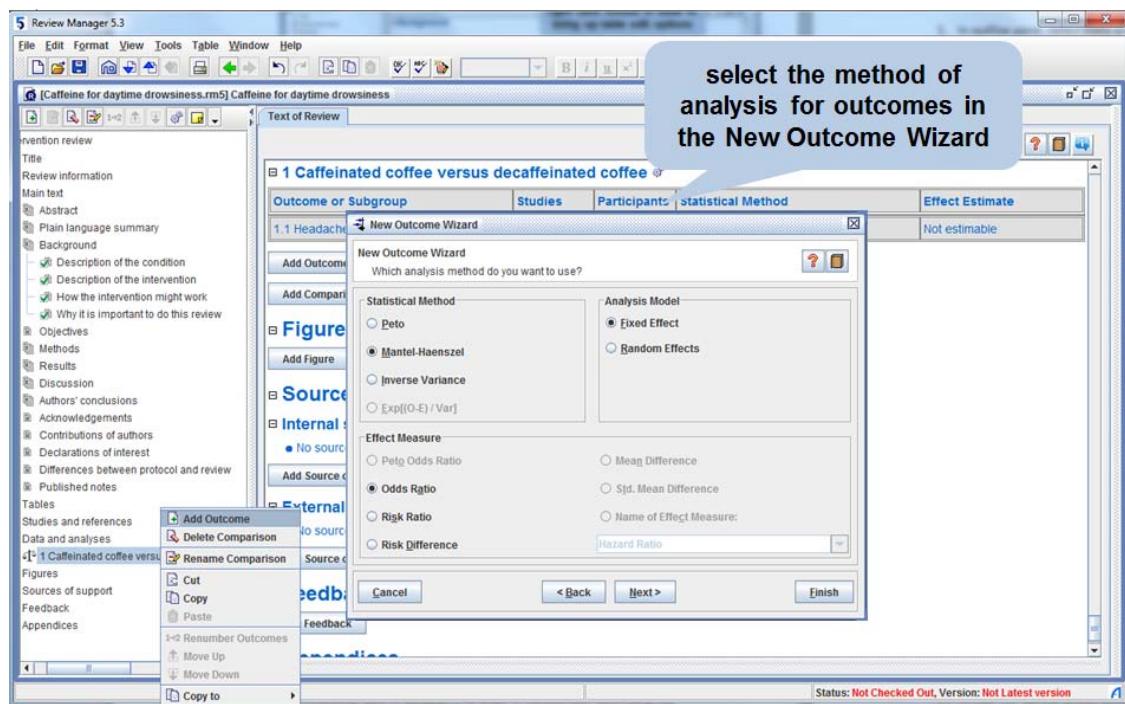
Once you have described your included studies, you can begin analysing the results.

Adding comparisons and outcomes

The first step in analysing data in RevMan is to enter a comparison, describing the intervention and what it is being compared to. Reviews may include one or more

comparisons. For each comparison, the next step is to enter the outcomes to be measured. For this example, 'headache' will be the outcome. For this example, headache is a dichotomous outcome, meaning there are only two possible results: headache or no headache.

1. In *outline pane*, select **Data and analyses**.
2. Click the **Add Comparison**  button on the *outline pane* toolbar. This will open the **New Comparison Wizard**.
3. Enter the **Name** 'Caffeinated versus decaffeinated coffee' and click **Next**.
4. Select **Add an outcome under the new comparison** and click **Continue**. This will open the **New Outcome Wizard**.
5. By default, the **Dichotomous** data type will be selected. Click **Next**.
6. Enter the **Name** 'Headache'.
7. Enter **Group Label 1** 'Caffeinated coffee' and **Group Label 2** 'Decaffeinated coffee'. Click **Next**.
8. You will now select the statistical methods RevMan will use. For more information, see the *Cochrane Handbook for Systematic Reviews of Interventions* on the **Help** menu. For this tutorial, select the following options:
Statistical Method: Mantel-Haenszel
Analysis Model: Fixed effects
Effect Measure: Risk Ratio



9. Click **Next**.
10. Accept the default analysis details RevMan will use. Click **Next**.
11. Accept the default graph details RevMan will use. Click **Next**.
12. For your next action, select **Add study data for the new outcome**. Click **Continue**. This will open the **New Study Data Wizard**.

Note: You can also open the **New Study Data Wizard** by selecting an outcome in the *outline pane* and clicking the **Add Study Data**  button.

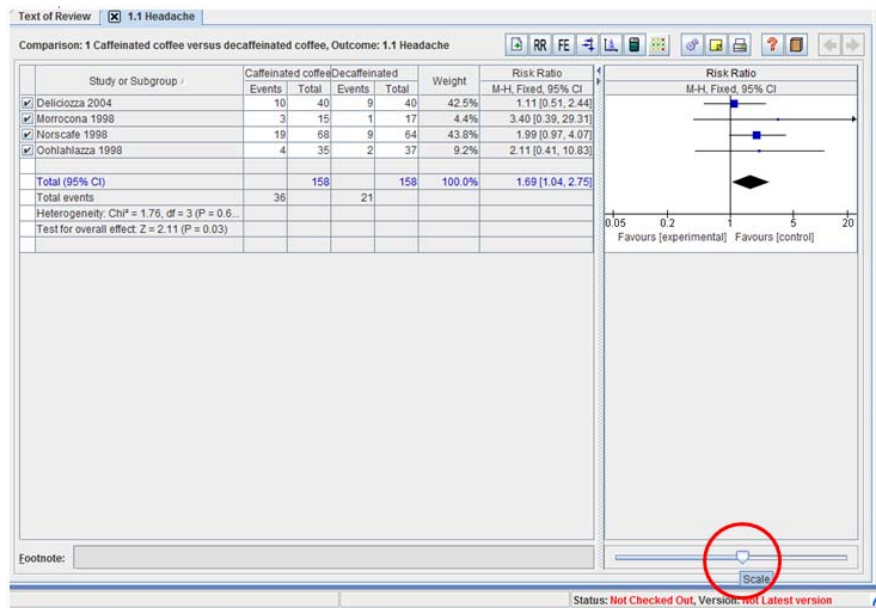
Entering dichotomous data

1. In the **New Study Data Wizard**, by default any of the five included studies are able to be selected from the **Included Studies** box. However, it is also possible to filter this list of included studies based on a given criterion (e.g., year, risk of bias judgement, and a particular outcome measured in the study).
2. In the first **Year range** box, enter '1998' and in the second box, enter '2000'. Note that now only three studies (Morrocona 1998, Norscafe 1998 and Oohlalazza 1998) appear in the **Included Studies** box, as the studies published after 2000 have been filtered out.
3. Delete both of the years that you typed in the **Year range** boxes.
4. In the **Outcome text** box, enter the word 'Fatigue'. Note that now only two studies (Deliciozza 2004 and Kahve-Paradiso 2002) appear in the **Included Studies** box. This is because the word 'Fatigue' has been typed into the Outcomes row of the **Characteristics of included studies table** for only these two studies.
5. Delete the word 'Fatigue' from the **Outcome text** box.
6. There are two drop-down menus next to the **Bias** filter. In the top drop-down menu, select **Random sequence generation (selection bias)**, and in the bottom drop-down menu, select **Low risk**. Note that now only one study (Deliciozza 2004) appears in the **Included Studies** box, as only this study has been rated as being at low risk of bias for random sequence generation.
7. Deselect the bias filter by selecting the top blank option from each of the two drop-down menus, so that all five studies are available for selection again.
8. Hold down the Control key and select the **Deliciozza 2004, Morrocona 1998, Norscafe 1998** and **Oohlalazza 1998** studies.
9. Click **Finish**. RevMan will open a new tab in the *content pane* showing a data table for the Headache outcome. The studies you have selected are listed.
10. For dichotomous outcomes, you will need to enter the number of events (in this case, the number of headaches) and the number of participants in each group. Enter the following data into the table:

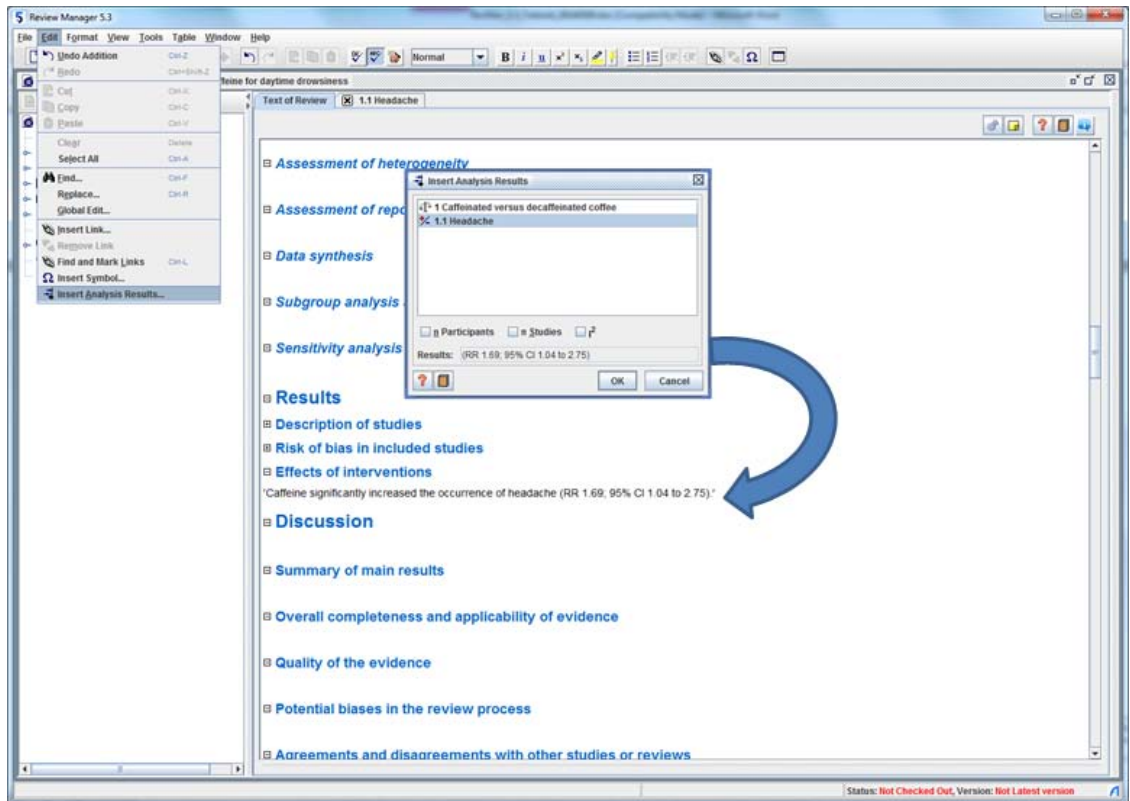
Study	Caffeinated coffee		Decaffeinated coffee	
	Events	Total	Events	Total
Deliciozza 2004	10	40	9	40
Morrocona 1998	3	15	1	17
Norscafe 1998	19	68	9	64
Oohlalazza 1998	4	35	2	37

11. RevMan will automatically calculate the risk ratio and 95% confidence interval for each study and the pooled values for all the studies. Use the scroll bar under the data table to scroll right and see these results.
12. The results are also displayed in a forest plot. The risk ratio for each study is shown as blue square, and with a horizontal line showing the confidence interval. The pooled result for all studies is shown as a black diamond.

- At the bottom of the screen under the forest plot is a sliding scale. Click and drag the white controller on the scale to change the scale of the forest plot. Set the scale to a range of **0.02 to 50**.




- RevMan calculates a weight for each study (for dichotomous outcomes this is based on the size of the study and the number of events). This determines how much each individual study contributes to the pooled estimate.
- At the bottom of the **Study or Subgroup** column in the results table, RevMan will calculate measures of heterogeneity: the Chi² and I² statistics. For random effects analysis, the Tau² statistic is also presented. In the top row of the table, use the mouse to click and drag the column border to show these statistics.
- At the bottom of the screen under the results table is space to enter footnotes. In the results table, select the **Morrocona 1998** study. In the **Footnote** field, enter the text 'Unpublished data provided by author'.
- At the top of the *content pane*, click the **Text of review** tab. Note that under the heading **Data and analyses**, RevMan has added a table with a brief summary of the results for this outcome, including the number of studies and participants and the summary statistic.
- Scroll up to the **Results** section of the review.
- Click the icon to open the **Results** section, and then the **Effects of interventions** section.
- Click to place the cursor in the **Effects of interventions** section, and enter the text 'Caffeine significantly increased the occurrence of headache.'
- From the **Edit** menu, select **Insert Analysis Results**. This will open the **Insert Analysis Results** window.
- Select **Headache** and click on the checkboxes next to n **Participants**, n **Studies**, and I².
- Click **OK**. RevMan will copy the pooled result of the Headache outcome into the text of the review. You can edit the text as needed.

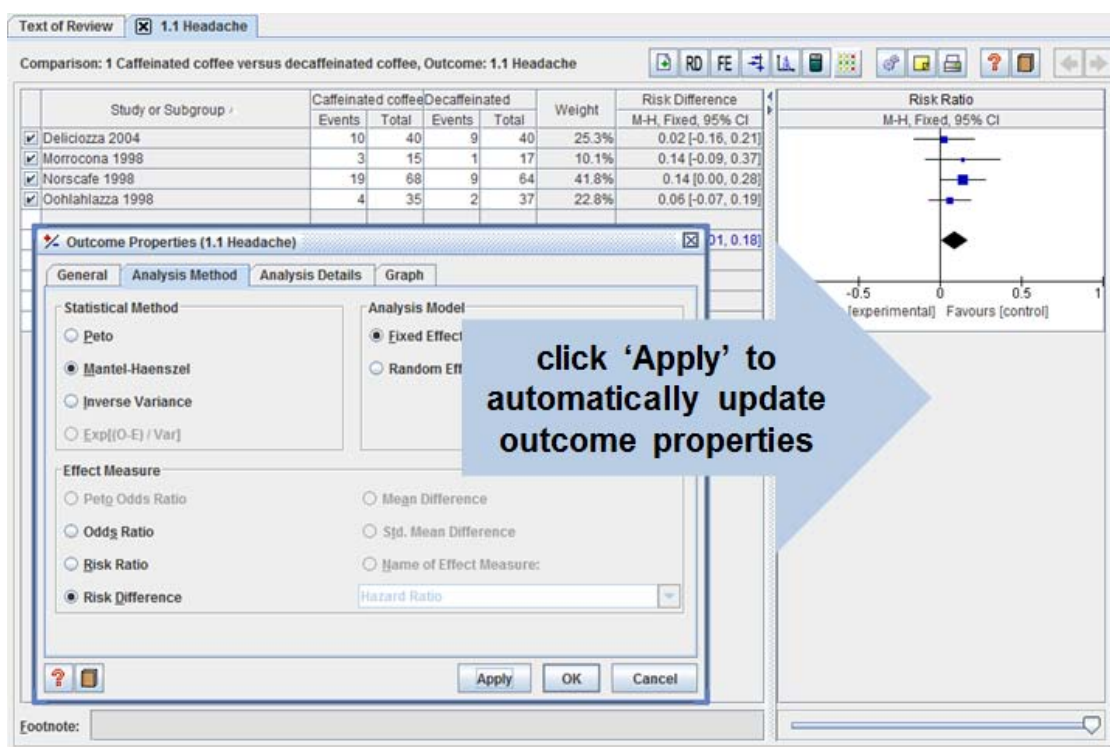


24. You can split the RevMan screen to see different sections of text. From the **View** menu, select **Split Text of Review**. Note that the content pane is now split in half.
25. Move the cursor to the bottom half of the screen and scroll down to the **Data and analyses** section so that you can see the table with the brief summary of results for the **Headache** outcome.
26. Check that the effect estimate reported in the table in the bottom half of the split screen is the same as that which you inserted into the **Effects of interventions** section in the top half of the split screen.
27. Turn the split screen feature off by repeating step 23 (i.e. from the **View** menu, select **Split Text of Review**).

Changing outcome properties

1. In the *outline pane*, double-click the **Headache** outcome under **Data and analyses** to go back to the **Headache** tab in the *content pane*.
2. Click the **Properties**  button in the top right corner of the *content pane*. This will open the **Outcome Properties** window.
3. Click the **Analysis Method** tab.
4. Select **Risk Difference** as the **Effect Measure**. Click **Apply**. Note that the results in the table and forest plot have changed.
5. Click on the **Graph** tab in the **Outcome Properties** window.
6. In the **Scale** field, enter '1' and click **Apply**. Note that the scale of the forest plot has changed to -1 to 1. You can set the forest plot scale to any value, not only the values available using the slide control in the *content pane*.
7. In the **Left Graph Label** box, enter 'Favours caffeine'.
8. In the **Right Graph Label** box, enter 'Favours decaf'.


- Click **Apply**. Note that the forest plot labels have changed.



Note: By default, RevMan assumes that outcomes are bad (e.g. headache). If you are measuring a good outcome (e.g. alertness), swap the graph labels so that the opposite side favours the treatment group.

- Click the **Analysis Details** tab.
- Under **Totals**, select **No Totals**. Under **Study Confidence Interval**, select **99%**.
- Click **Apply**. Note that the meta-analysis result is no longer displayed, and the lines representing the confidence interval for each study have become wider. Now select **Totals and subtotals** again to display the meta-analysis.
- Check the **Swap event and non-event** option, and click **Apply**. RevMan will now display results for participants who did not have a headache. The forest plot will be reversed, including the labels at the bottom, and the summary estimate will change.
- Click the **Graph** tab.
- In the **Sort By** area, select **Year of study** and click **Apply**. Note the change in the forest plot.
- Select **User defined order** and click **OK**. There will be no change to the forest plot, but you can now re-order the studies in the *outline pane*.
- In the *outline pane*, click the key icon next to the **Headache** outcome.
- Select the **Oohlalazza** study and click the **Move Up** button on the *outline pane* toolbar. Note the change in the data table and forest plot.
- In the *content pane*, click the **Change To: Odds Ratio** button on the tool bar above the forest plot. Note that the results in the table and forest plot have changed. Press this button again to change the results to Risk Ratio format.







Press this button one more time to return the results to Risk Difference format.

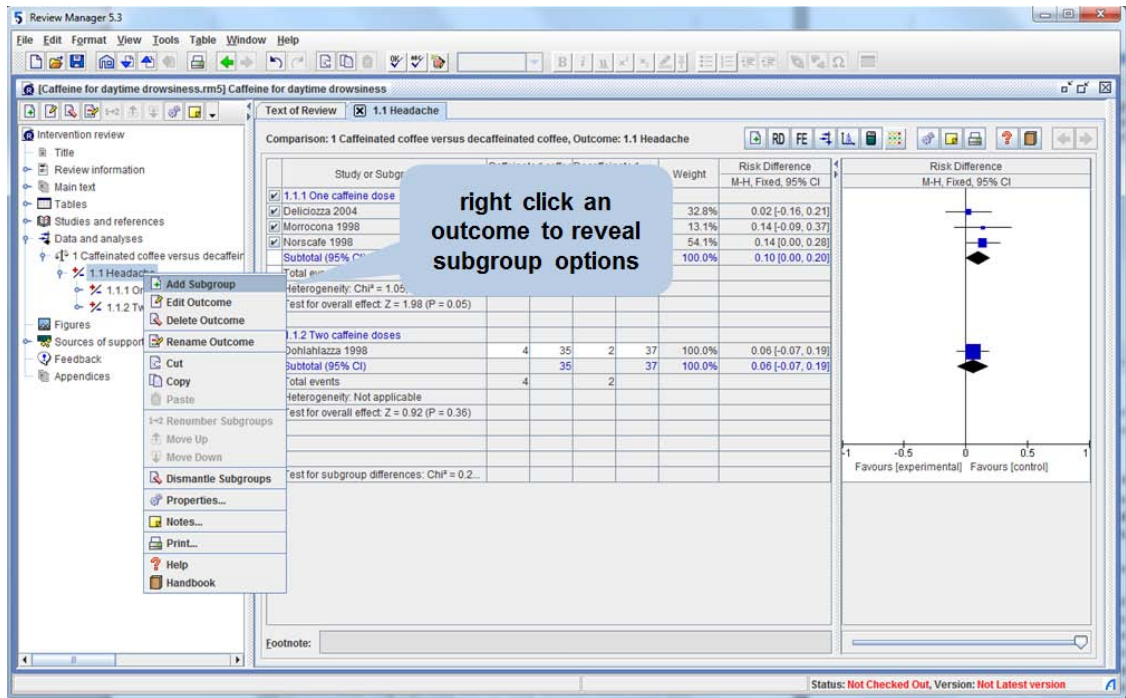
20. In the content pane, click the **Change To: Random Effects**  button on the tool bar above the forest plot. Note that the results in the table and forest plot have changed from a fixed-effect analysis to a random-effects analysis.

Note: There are different methodological and statistical rationales for performing a fixed-effect as opposed to a random-effects meta-analysis. For more information, see the *Cochrane Handbook for Systematic Reviews of Interventions*, available from the **Help** menu.

Adding subgroups



RevMan allows you to divide outcomes into subgroups. You can add the subgroups when you first create an outcome, or add subgroups to an existing outcome.

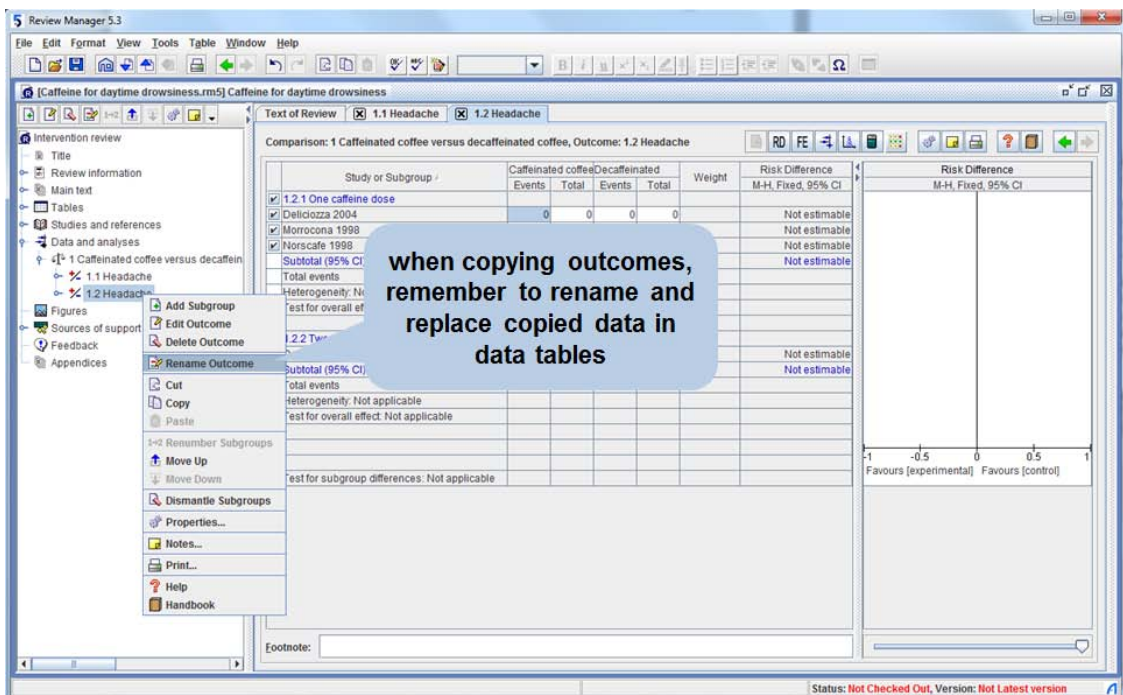
1. In the *outline pane*, right-click the **Headache** outcome and select **Introduce Subgroup**. A subgroup will appear in the *outline pane* with the default name 'New subgroup'. All the included studies will be listed under the new subgroup.
2. In the *outline pane*, select the **New Subgroup**, then right-click and select **Rename Subgroup**.
3. Enter the name 'One caffeine dose'. Click elsewhere to close the editing box.
4. In the *outline pane*, select the **Headache** outcome and click the **Add Subgroup**  button on the *outline pane* toolbar. This will open the **New Subgroup Wizard**.
5. Enter the **Name** 'Two caffeine doses' for the new subgroup and click **Next**.
6. For your next action, select **Edit the new subgroup** and click **Finish**. Note that there is now a separate section in the data table for each subgroup.
7. In *outline pane*, click the key icon  to see the studies listed under the **One caffeine dose** subgroup.
8. Select the **Oohlahlazza** study and click the **Cut**  button on the toolbar.
9. Select the **Two caffeine doses** subgroup and click the **Paste**  button.
10. Click the key icon  to see that the **Oohlahlazza** study now appears under the **Two caffeine doses** subgroup. Note that the study has also moved in the data table in the *content pane*, and the forest plot shows separate results for each subgroup.
11. In the *outline pane*, select the **Headache** outcome and click the **Properties**  button on the *outline pane* toolbar.
12. In the **Analysis Details** tab, under **Totals**, select **Subtotals only** and click **OK**. The forest plot now includes two black diamonds showing the summary effect for each subgroup. Subgroup summary statistics are included in the data table.




Copying an outcome or comparison

If you wish, you can avoid typing the information again by copying an existing outcome or comparison.


1. In the *outline pane*, select the **Headache** outcome.
2. Click the **Copy**  button on the toolbar.
3. Select the **Caffeinated versus decaffeinated coffee** comparison.
4. Click the **Paste**  button on the toolbar. A duplicate outcome for Headache has been created.



5. Select the second **Headache** outcome, then *right-click* the mouse and select **Rename Outcome**.
6. Enter the name 'Migraine' and click elsewhere to close the editing box.
7. Double-click the **Migraine** outcome to open the **Migraine** tab. Note that all the data from the Headache outcome has been copied across.
8. Delete the number of events in each group.
9. In the *outline pane*, select the **Migraine** outcome and click the **Move Up**  button on the *outline pane* toolbar. Note that this outcome is now first on the list, and the list has been renumbered.

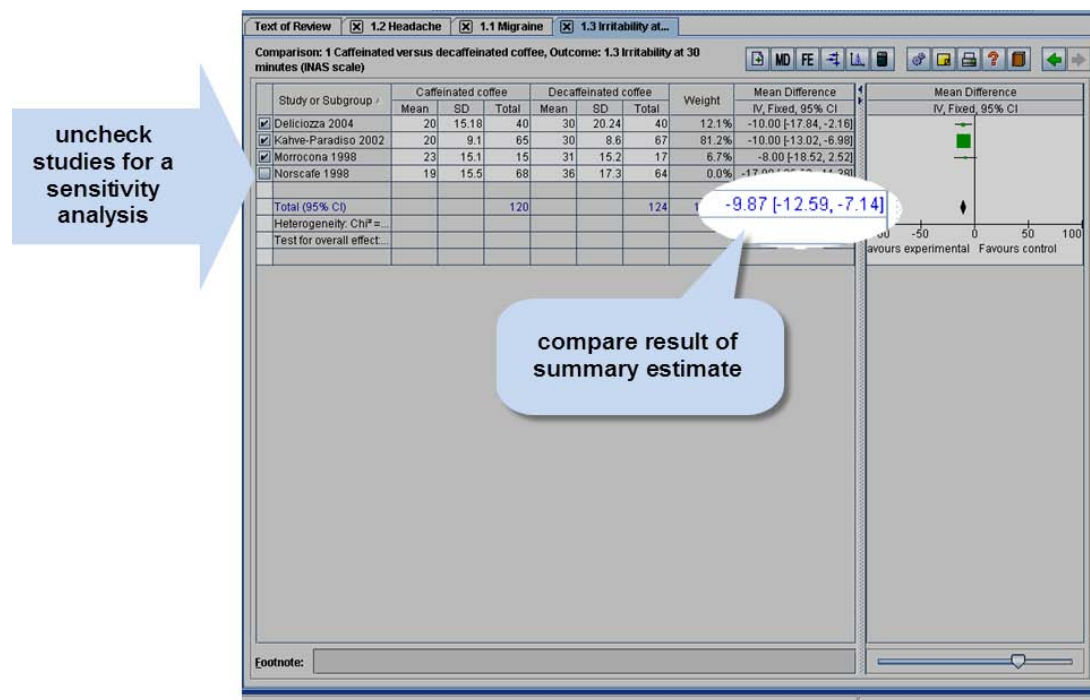
Adding a continuous outcome

Continuous outcomes are measured on a scale on which any value is possible, or that can be reasonably summarised as a mean value and standard deviation. Examples could include height, blood pressure, pain or quality of life.

1. In the *outline pane*, select the **Caffeinated versus decaffeinated coffee** comparison, and click the **Add Outcome**  button on the *outline pane* toolbar.
2. Select the **Continuous** data type and click **Next**.
3. Enter the **Name** 'Irritability at 30 minutes (INAS scale)' and click **Next**.
4. Accept the default settings for statistical measures. The default measure is the mean difference between the intervention and control groups. Click **Next**.
5. Accept the default settings for analysis details, and click **Next**.
6. Accept the default settings for graph details, and click **Next**.
7. Select **Add study data for the new outcome** and click **Continue**.
8. Hold down the **Control** key and select the **Deliciozza 2004, Kahve-Paradiso 2002, Morrocona 1998** and **Norscafe 1998** studies.
9. Click **Finish**. RevMan will open a new tab for the new outcome.
10. For continuous outcomes, you will need to enter the number of participants, the mean outcome value and the standard deviation for each group. Enter the following data into the outcome table for irritability:


Study	Caffeinated coffee			Decaffeinated coffee		
	Mean	SD	Total	Mean	SD	Total
Deliciozza 2004	20	15.18	40	30	20.24	40
Kahve Paradiso 2002	20	9.1	65	30	8.6	67
Morrocona 1998	23	15.1	15	31	15.2	17
Norscafe 1998	19	15.5	68	36	17.3	64

11. You now have summary statistics and a forest plot for irritability. Note that the **Norscafe 1998** study shows a stronger effect than the other studies. To conduct a sensitivity analysis, uncheck the box to the left of the **Norscafe 1998** study in the data table. This will remove the study from the meta-analysis without deleting the entered data. Note the difference in the summary estimate.



Using the Calculator for intervention reviews

In some study publications, the authors may not report the standard deviations of each group, and instead report some other measure of variability (e.g., standard error of the mean, 95% confidence interval of the difference in means), or simply the *t*-value or *p*-value for the test of statistical significance. You will need to convert these different measures to standard deviations for each group in order to enter these data into RevMan. This can be done by using the **Calculator**.

1. Click the **Calculator**  button on the toolbar of the tab for the outcome, **Irritability at 30 minutes (INAS scale)**. This will open the **Calculator** window.
2. All fields in this window should be empty. Enter the following data into the relevant fields:

Group	Mean	N	SE
Caffeinated coffee	22	35	2.9
Decaffeinated coffee	32	35	2.8

3. You will notice that once these data have been entered, all other fields in the **Calculator** window will be automatically calculated, including the standard deviation for each group, which can now be entered into RevMan for the particular study (for the purposes of this tutorial, do not enter these data into the data table for the outcome, **Irritability at 30 minutes (INAS scale)**).
4. Close the **Calculator** window by clicking **Cancel**.

Note: The calculator also includes a link a Microsoft Excel file that includes alternative formulae to estimate or derive standard deviations (e.g. standard deviation from *P/t* values for mean difference). The formulae are taken from the Cochrane Handbook.

Entering data from different scales measuring the same outcome

Some outcomes can be measured on several different numerical scales, and your included studies may not all use the same scale. RevMan can combine outcomes measured on different scales by standardising them.

1. Right-click the **Caffeinated versus decaffeinated coffee** comparison, and select **Add Outcome**.
2. Select the **Continuous** data type and click **Next**.
3. Enter the **Name** 'Drowsiness at 30 minutes' and click **Next**.
4. Under **Effect Measure**, select **Std. Mean Difference** and click **Next**.
5. Accept the default settings for analysis details. Click **Next**.
6. Accept the default settings for graph details (for now do not modify the graph labels). Click **Next**.
7. For your next action, select **Add study data for the new outcome** and click **Continue**.
8. Hold down the **Control** key and select the **Kahve-Paradiso 2002**, **Morrocona 1998** and **Oohlahlazza 1998** studies.
9. Click **Finish**. RevMan will open a new tab for the new outcome.
10. As for the previous outcome, you will need to provide the number of participants, the mean outcome value and the standard deviation for each group. Enter the following data into the outcome table:

Study	Caffeinated coffee			Decaffeinated coffee		
	Mean	SD	Total	Mean	SD	Total
Kahve Paradiso 2002	46	22.3	65	55	20.8	67
Morrocona 1998	26	18.6	15	59	28.6	17
Oohlahlazza 1998	46	25.5	35	57	26.5	37

11. You now have a summary estimate and forest plot for drowsiness. Note that the summary estimate is not in units on the outcome scale, but units of standard deviation. See the *Cochrane Handbook for Systematic Reviews of Interventions*, available from the **Help** menu, for advice on interpreting these results.

Using generic inverse variance


The generic inverse variance method in RevMan can be used to analyse other types of data such as rates, time-to-event outcomes, hazard ratios, ordinal scales, adjusted estimates, difference of means or ratios of means. The generic inverse variance method requires a single estimate of effect and its standard error for each study.

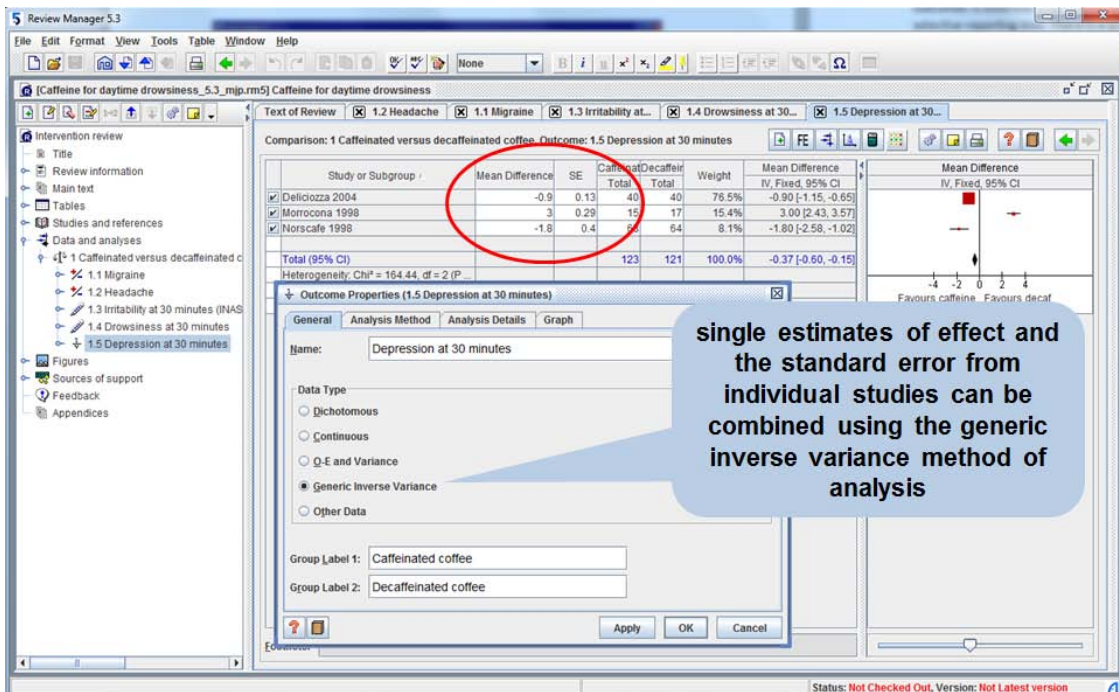
1. Right-click the **Caffeinated versus decaffeinated coffee** comparison, and select **Add Outcome**.
2. Select the **Generic Inverse Variance** data type and click **Next**.
3. Enter the **Name** 'Depression at 30 minutes' and click **Next**.
4. Under **Effect Measure**, select **Mean Difference**. Note that there are additional options available from the drop-down box under **Name of Effect Measure**,

and you can also click in this box and type the name of another measure of your choice. Click **Next**.

5. Accept the default settings for analysis details. Click **Next**.
6. Accept the default settings for graph details (for now do not modify the graph labels). Click **Next**.
7. Select **Add study data for the new outcome** and click **Continue**.
8. Hold down the **Control** key and select the **Deliciozza 2004**, **Morrocona 1998** and **Norscafe 1998** studies.
9. Click **Finish**. RevMan will open a new tab for the new outcome.
10. Note that the data table for the **Generic Inverse Variance** method only requires one summary statistic and its standard error for each study. You do not need to enter separate data for the intervention and control group. Enter the following data into the outcome table:

Study	Effect measure	
	Mean difference	SE
Deliciozza 2004	-0.9	0.13
Morrocona 1998	3.0	0.29
Norscafe 1998	-1.8	0.40

11. You now have a summary estimate and forest plot for depression. You may also add the number of participants to the results table, although this will not affect the results. Click the **Properties** button  in the top right corner.



The screenshot shows the RevMan 5.3 interface. The main window displays a forest plot for 'Comparison: 1 Caffeinated versus decaffeinated coffee. Outcome: 1.5 Depression at 30 minutes'. The data table below the plot shows individual study estimates and a total estimate. A red circle highlights the 'Mean Difference' and 'SE' columns for the three studies. The 'Outcome Properties' dialog box is open, showing the 'Generic Inverse Variance' method selected. A blue callout box points to this selection with the text: 'single estimates of effect and the standard error from individual studies can be combined using the generic inverse variance method of analysis'.

Study or Subgroup	Mean Difference	SE	Total	Total	Weight	Mean Difference IV, Fixed, 95% CI
Deliciozza 2004	-0.9	0.13	40	40	76.5%	-0.90 [-1.15, -0.65]
Morrocona 1998	3.0	0.29	15	17	15.4%	3.00 [2.43, 3.57]
Norscafe 1998	-1.8	0.4	56	64	8.1%	-1.80 [-2.58, -1.02]
Total (95% CI)			123	121	100.0%	-0.37 [-0.60, -0.15]

12. Open the **Analysis Details** tab.
13. Check the **Enter number of participants (Generic Inverse Variance, for display only)** option and click **OK**. Note that two new columns have been added to your data table for the number of participants in each group.

14. Enter the following data into the new columns:

Study	Caffeinated coffee	Decaffeinated coffee
	Total	Total
Deliciozza 2004	40	40
Morrocona 1998	15	17
Norscafe 1998	68	64





Note: When using the generic inverse variance method for ratio measures (e.g. hazard ratios or risk ratios), convert the summary statistics and standard errors to the **log scale** before entering into RevMan, and check the **Entered data are on log scale** option in the **Analysis details** tab of the **Properties** window. RevMan will convert the results back to ordinary ratios. For more information on these steps, see the *Cochrane Handbook for Systematic Reviews of Interventions*, available from the **Help** menu.

You may have noted that the graph labels for the last three outcomes you added to this review (Irritability, Drowsiness, and Depression) are currently set to the default setting of “Favours experimental” versus “Favours control”. Rather than changing the graph labels for each outcome individually, RevMan allows you to edit all graph labels at the comparison level.

1. In the *outline pane*, double click the **Caffeine versus decaffeinated coffee** comparison to open the **Comparison Properties** window.
2. Check the **Set graph labels for all outcomes under this comparison** option. In the **Left graph label** box enter ‘Favours caffeine’ and in the **Right graph label** box enter ‘Favours decaf’.
3. Click **OK**.
4. In the *content pane*, when you open each of the outcome tabs, note how the graph labels have been modified.

Identifying the outcomes for which a study had provided data

You have now entered data on five different outcomes in RevMan. However, you may have noticed that not all of the studies were added to the data tables for each of these outcomes. Determining whether a study provides data on all appropriate outcomes is essential when trying to make an assessment of the study’s risk of selective reporting bias. There is a quick way to identify whether a study has provided data on all appropriate outcomes or not.










1. In the *outline pane*, click the key icon  next to **Studies and references**.
2. Click the key icon  next to the **Reference to studies** section.
3. Click the key icon  next to the **Included studies** section.
4. Select **Kahve-Paradiso 2002** and click the **Edit Study**  button on the *outline pane* toolbar. This will open a tab in the *content pane* for this study.
5. Under the **Outcomes** section of this **Kahve-Paradiso 2002** tab there is a table indicating that this study has only provided data on two outcomes (‘Irritability and 30 minutes’ and ‘Drowsiness at 30 minutes’).

6. In the *outline pane*, select **Oohlahlazza 1998** and double click. Note how the table of outcomes for this study indicates that this study provides data on three outcomes ('Headache', 'Drowsiness at 30 minutes', and 'Migraine').
7. When you are finished, close the tabs for these two studies in the content pane.

Note: For information on assessing the risk of selective reporting bias, see the Cochrane Handbook for Systematic Reviews of Interventions, available from the **Help** menu.

Alternate ways of displaying study information in RevMan

The default view in RevMan displays information about each study under separate sections (i.e. Tables, Studies and references, Data and analyses). An alternate way to display study information is the **Study Centric View**. It groups all information regarding each individual study in the following order: References, Characteristics, Risk of bias table and Results data.


1. In the *outline pane* toolbar, click the **Change to Study Centric View** button . Note that this button may be hidden if your *outline pane* is contracted. If not visible, click the drop down arrow  in the *outline pane* toolbar and select **Change to Study Centric View** from the list.
2. Click the key icon  next to the **Studies** section.
3. Click the key icon  next to the **Included studies** section.
4. Select **Deliciozza 2004**. in the *content pane*, scroll down to see that all relevant information about this study is now displayed.
5. In the *outline pane*, click the key icon  next to the **Deliciozza 2004** study.
6. Click the key icon  next to the **Results data** section.
7. Click the key icon  next to the Caffeinated versus decaffeinated coffee comparison. Note that all the outcomes for which data have been entered for Deliciozza 2004 are listed.
8. Double click the Headache outcome to open the **Results for Deliciozza 2004** tab, displaying all the outcomes in which Deliciozza 2004 has been included. Data can be added or edited in this tab.
9. Click the close button  to close the **Results for Deliciozza 2004** tab.
10. To revert back to the default view, click the **Change to Default View** button .

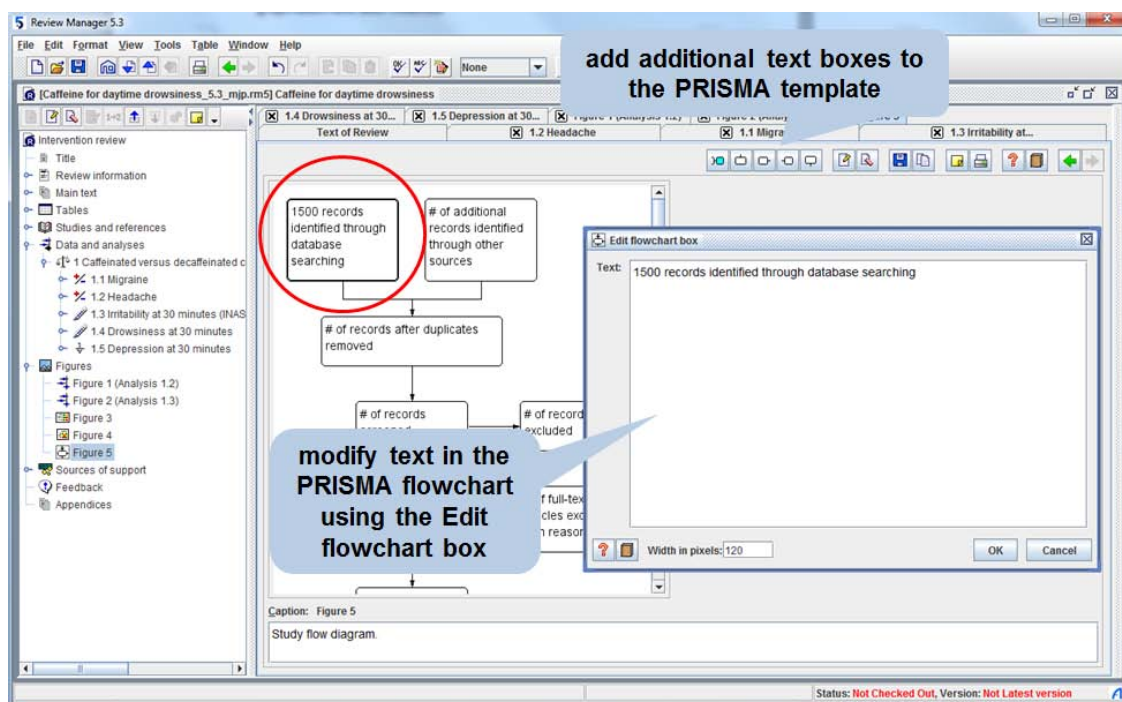
Note: You can also set the view to **Study Centric View** under **Tools > Preferences > Interface**.






Adding a PRISMA flowchart

The PRISMA statement is a 27-item checklist that aims to help authors improve reporting of systematic reviews and meta-analyses. Item 7 of the PRISMA statement recommends authors to report all information sources used in the search for studies (e.g., databases with dates of coverage, contact with study authors to identify additional studies) and the date of the last search. A fixed template of the PRISMA flowchart can be generated in RevMan.

1. In the *outline pane*, select **Figures**.


2. Click the **Add Figure**  button on the *outline pane* toolbar. This will open the **New Figure Wizard**.
3. Select **Study flowchart (PRISMA template)** and click **Next**.
4. Click **Finish**. RevMan will create a template of the PRISMA statement which you will need to edit to enter the relevant information (e.g. numbers of records identified through database searching).
5. To edit the flowchart, double click **Figure 1** in the *outline pane* to open the **Figure 1** tab in the *content pane*.
6. In the **Figure 1** tab in the *content pane*, double click the first box (**# of records identified through database searching**) to open the **Edit flowchart box**. Place the cursor in the text box and delete the current text. Then enter '1500 records identified through database searching'. Click **OK**.
7. Note that the text in the first box of the flowchart has been modified.

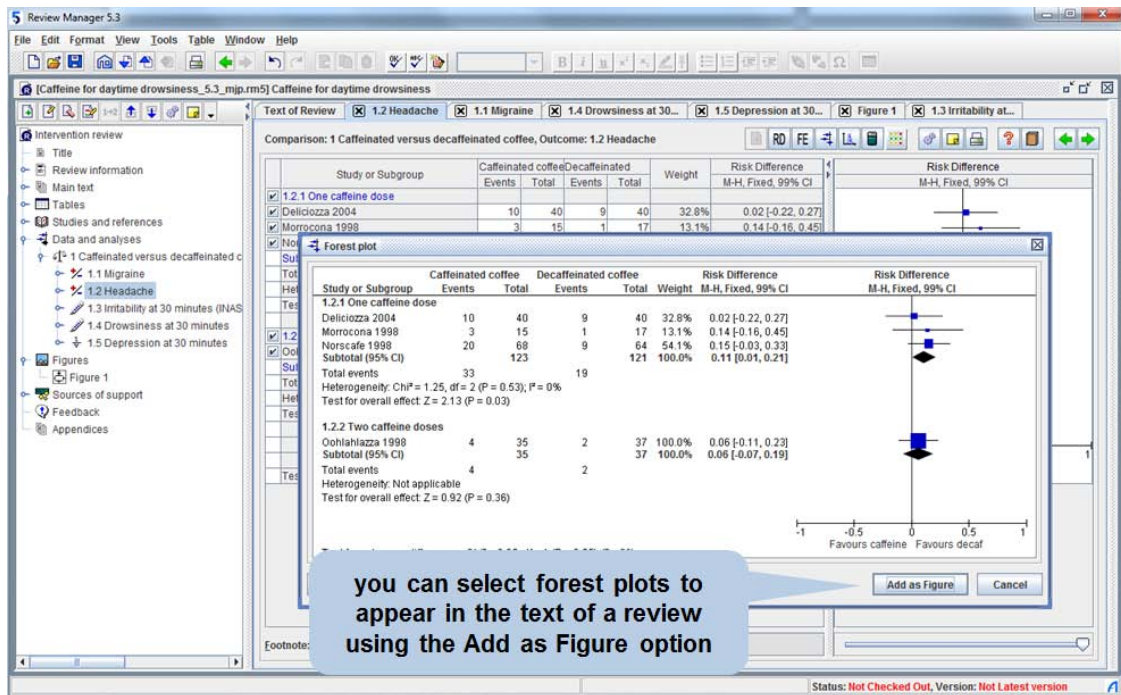






Note: Additional text boxes can be added to the PRISMA flowchart by selecting a template text box and clicking either of the Add exclusion , Add below , Add previous sibling , Add following sibling , or Add above  buttons above the PRISMA flowchart

Adding a forest plot figure to your review

A small number of key forest plots can be included as figures in the text of your review. Forest plots for all outcomes will be accessible separately.

1. In the *outline pane*, double-click the **Headache** outcome to open the **Headache** tab in the *content pane*.
2. Click the **Forest plot**  button above the forest plot in the *content pane*. This will display the forest plot as it will appear in the published review.
3. Click **Add as Figure**. This will open a new tab showing the forest plot, labelled as **Figure 2**.





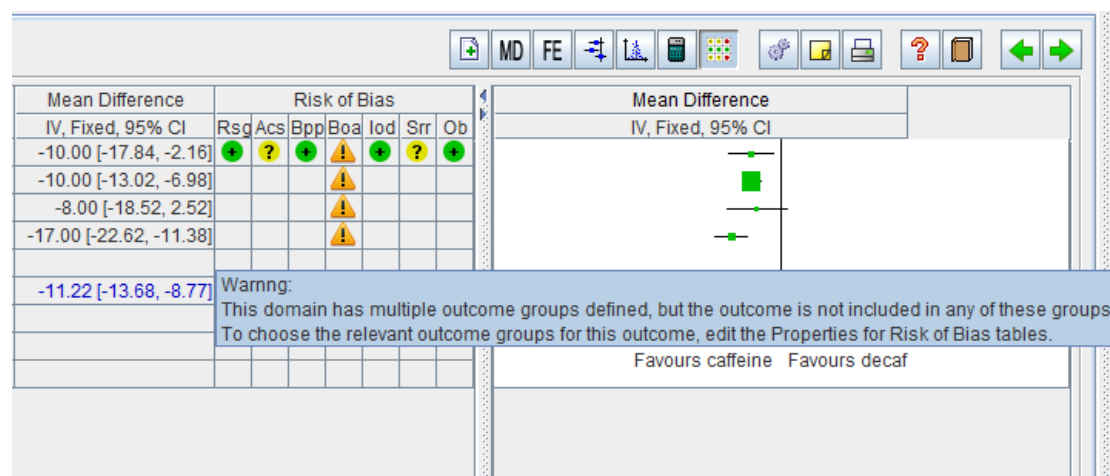
- In the *outline pane*, click the key icon  next to the **Figures** heading to see that the figure has been added.
- In the *content pane*, click on the **Headache** outcome tab.
- In the **Norscafe** study, change the number of events in the caffeinated coffee column from 19 to 20.
- Click on the **Figure 2** tab again. Note that the numbers have been automatically updated.
- Click the **Save As**  button in the top right corner of the **Figure 2** tab. This allows you to save the figure as a graphic file on your computer. Click **Cancel**.
- Click the **Text of Review** tab. Scroll up to the **Results** section of your review.
- Click the  icon to open the **Results** section, and then the **Effects of interventions** section (if it is not already visible).
- Click to place the cursor in the **Effects of interventions** section.
- Click the **Insert Link**  button on the toolbar.
- From the **Insert Link To** list, select **Figure**.
- Select **Figure 2 (Analysis 1.2)** and click **OK**. A link to Figure 2 will now appear in the text of the review. In the published version, a thumbnail image will appear.


Showing the risk of bias summary in a forest plot

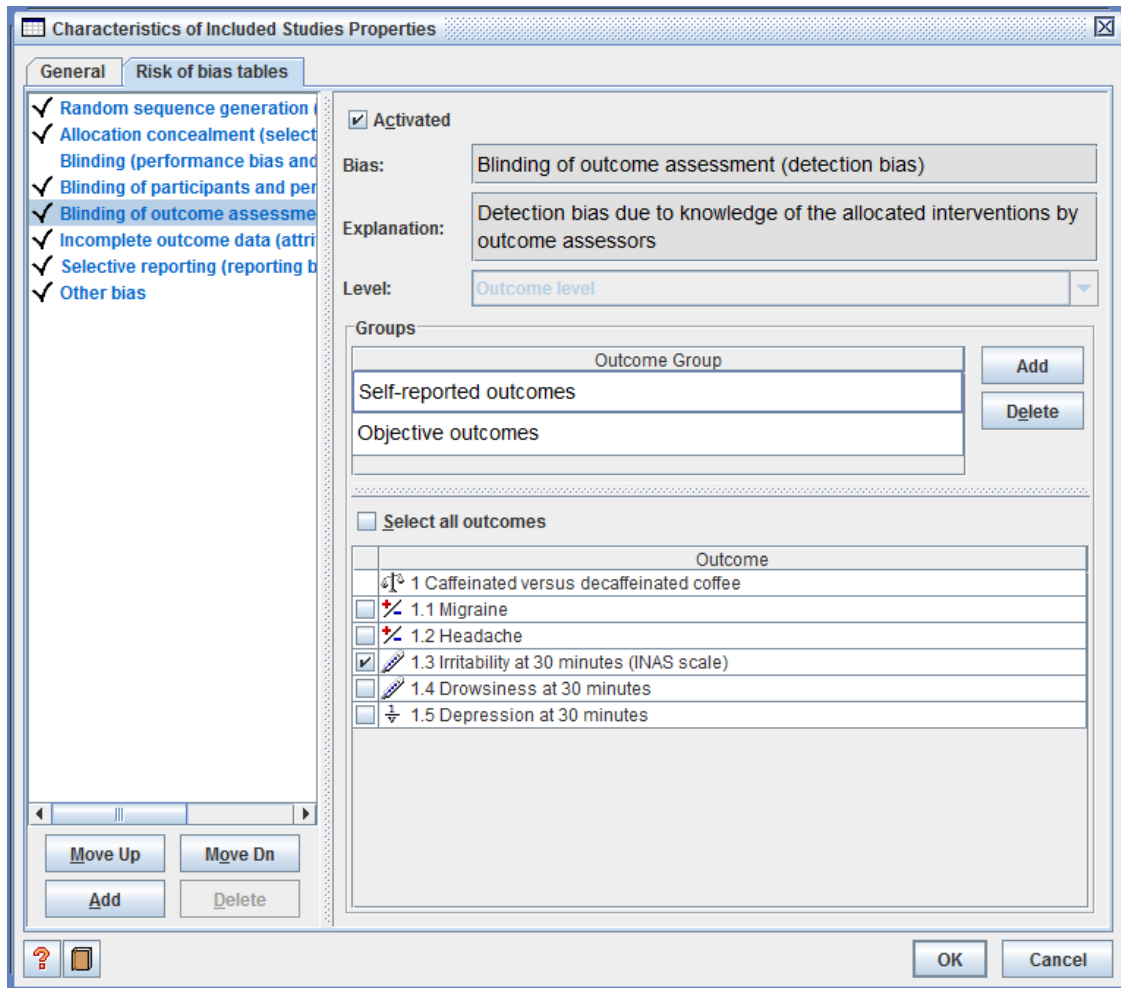
A risk of bias summary can be included in forest plots, presenting the risk of bias judgments for studies contributing data to their analyses. You can display the risk of bias summary in your data tables, to assist you in assessing the possible impact of the risk of bias on your results, for example as part of a sensitivity analysis, or when assessing the quality of evidence as part of a GRADE assessment. You can also display this information in forest plots selected as Figures.

Note: You choose to display risk of bias summary in data tables, or in Figures, or both. In the published version of your review, the risk of bias summary will only appear in the forest plots that you have included as Figures in the text of the review.

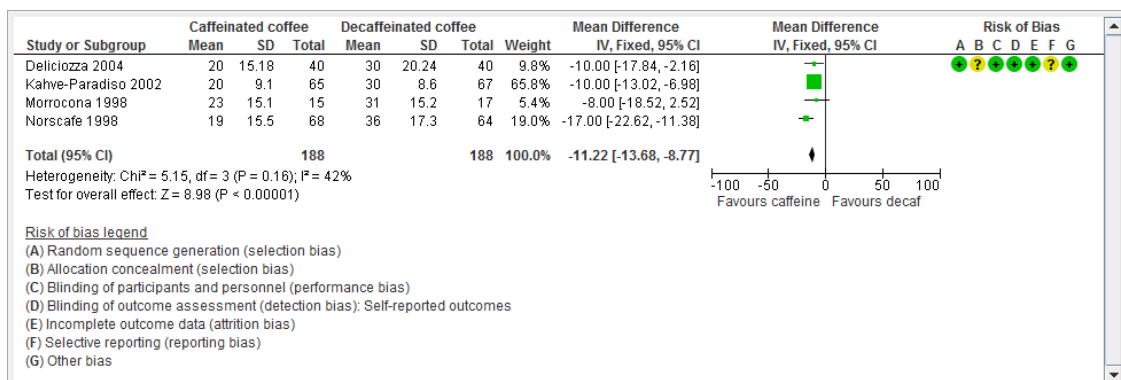
1. In the *outline pane*, double-click the **Irritability at 30 minutes (INAS scale)** outcome to open the **Irritability at 30 minutes (INAS scale)** tab in the *content pane*.
2. Click the **Risk of Bias Summary** button  above the forest plot in the *content pane*.
3. The risk of bias summary will now appear next to the forest plot. Note that **Deliciozza 2004** will be the only study with a completed row in the summary because we have only completed the risk of bias assessment for this study.
4. The fourth column of the risk of bias summary, representing **Blinding of outcome assessment (Boa)** has a warning symbol  for each study. If you hold the cursor over the warning symbol, a message will appear indicating that this risk of bias domain has multiple outcome groups defined (recall earlier that we divided this domain into self-reported and objective outcomes). However, RevMan does not know whether the outcome we are analysing is self-reported or objective, so does not know which **Blinding of outcome assessment** judgement to display. Therefore, we need to assign the relevant outcome group for this outcome.





5. Click the **Forest plot**  button above the forest plot in the *content pane*. An **Outcome not added to Outcome Group** window will open. Select **Edit Risk of Bias table Properties**.
6. In the **Risk of bias tables Properties** window, select **Blinding of outcome assessment**. In the bottom of the window all the comparisons and outcomes you have entered in the **Data and analyses** section will be listed. You may need to use the mouse to increase the size of the window to see the list clearly.
7. Under **Outcome Group**, select **Self-reported outcomes** and click the tick box next to **1.3 Irritability at 30 minutes (INAS scale)**.
8. Click **OK**.



9. Note that the warning symbols in the data table and the **Forest plot** window have been replaced with a green circle, representing a judgement of low risk of bias. In the **Forest plot** window, select **Add as Figure**.
10. **Figure 3 (Analysis 1.3)** will display the risk of bias summary. Note that in Figures, each domain is given a letter. A legend shows that **Blinding of outcome assessment (detection bias): Self-reported outcomes** is Domain D.



If you have already created a forest plot as a figure, you can edit its properties to activate the Risk of Bias Summary.


1. In the *outline pane*, click the key icon  next to **Figures**.
2. Double click **Figure 2 (Analysis 1.2)**.
3. Click the **Properties** button  above the forest plot in the *content pane*.
4. Select **Show Risk of bias summary** and click **OK**. The warning about specifying which outcome group the outcome belongs to will appear, and you will be prompted to **Edit Risk of Bias table Properties**. For now, select **Cancel**.

Alternatively, you can set the risk of bias summary to display by default for all outcomes and figures created.

1. From **Tools** menu on the toolbar, select **Preferences** which will open the **Preferences** window.
2. Under **Miscellaneous** on the **Interface** tab, check the **Show RoB summary in forest plots and Outcome tables** option. Click **OK**.
3. In the *outline pane*, double-click the **Depression at 30 minutes** outcome to open the **Depression at 30 minutes** tab in the *content pane*.
4. Note that the risk of bias summary appears next to the forest plot.


Risk of bias graphs and summaries

RevMan also allows you to create figures that give an overall picture of the risk of bias in your included studies (i.e. for all included studies, not just those included in a particular forest plot).

1. In the *outline pane*, select **Figures**.
2. Click the **Add Figure**  button on the *outline pane* toolbar. This will open the **New Figure Wizard**.
3. Select **Risk of bias graph** and click **Next**.
4. Click **Finish**. RevMan will create a graphical representation of the judgments (low risk, high risk and unclear risk) entered in your **Risk of bias tables**, presented as percentages across all included studies.
5. Repeat steps 1 and 2. This time select **Risk of bias summary**.
6. Click **Next** and then **Finish**. RevMan will create an alternative graphical representation of the judgments in the **Risk of bias tables**, this time presenting your judgements about each domain for each included study.

Publication bias and funnel plots

RevMan allows you to create funnel plots to test your review for publication bias.



1. In the *content pane*, click on the **Headache** outcome tab.
2. Click the **Funnel plot**  button above the forest plot. This will open a funnel plot for this outcome.
3. To add this plot as a figure in your review, click **Add as Figure**. The figure will be added in the *outline pane* as **Figure 6**. You could now add a link to this figure in the text of the review, as you did for **Figure 2**.

Note: A funnel plot is not usually created for fewer than 10 studies. For more information, see the *Cochrane Handbook for Systematic Reviews of Interventions*, available from the **Help** menu.

PART 6 – Finishing the review

Summary of findings tables


When your review is complete, summary of findings tables can be added. For more information on how to complete a summary of findings table, see the *Cochrane Handbook for Systematic Reviews of Interventions*, available from the **Help** menu.

1. In the *outline pane*, use the key icon  to expand the **Tables** heading, and select **Summary of findings**.
2. Click the **Add Summary of Findings Table**  button on the *outline pane* toolbar. This will open the **New Summary of Findings Table Wizard**.
3. There are two options for adding a summary of findings table to your review:
 - Import a complete summary of findings table from GRADEprofiler (a separate software program designed to produce these tables).
 - Create the table using RevMan's table editorFor this tutorial, select **Create the table using RevMan's table editor**. Click **Next**.
4. Leave the title as 'Summary of findings. Click **Next**.
5. A maximum of 7 of the most important outcomes in the review should be included in the table. For this tutorial, select the outcome **Migraine** and click **Add**. Then select **Headache** and click **Add**. Finally, select **Drowsiness at 30 minutes** and click **Add**.
6. Click **Next**.
7. Accept the default columns to be included in the table. Click **Finish**.
8. The template summary of findings table will be added to your review. You can edit this template by typing directly into the table.

Note: Summary of findings tables created using GRADEprofiler software and then imported into RevMan can be edited in RevMan as per other tables.


Adding an appendix

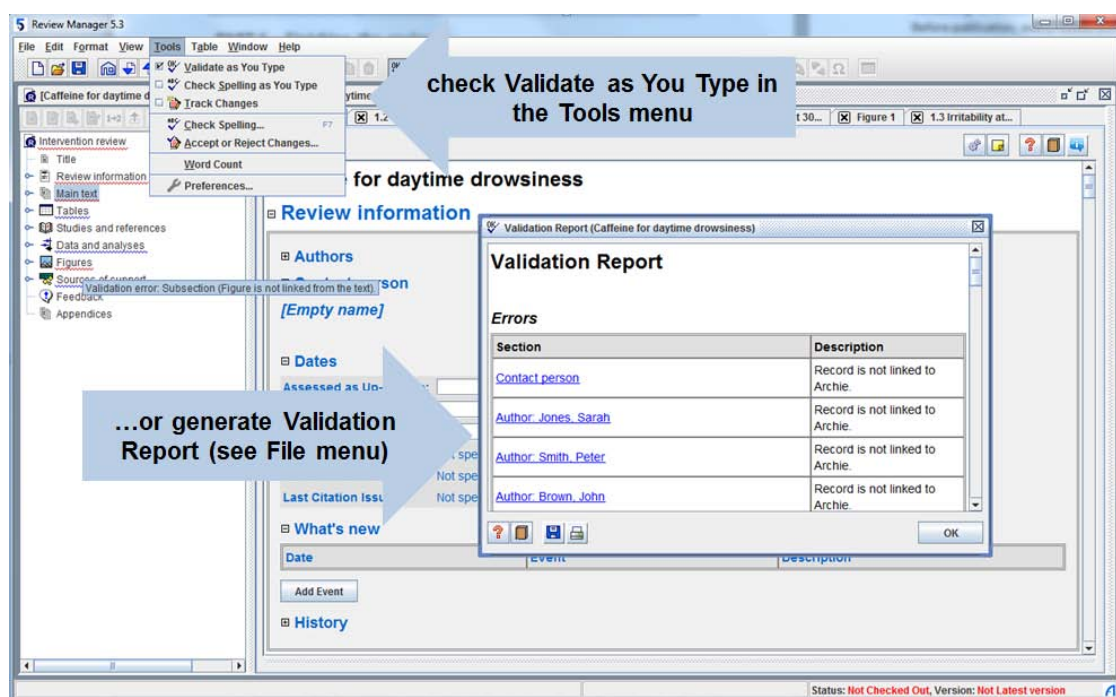
You can include more detailed information that is not essential to the main body of your review in an appendix, such as detailed search strategies or statistical methods.

1. In the *outline pane*, select the **Appendices** heading.
2. Click the **Add Appendix** button  on the *outline pane* toolbar. This will open the **New Appendix Wizard**.
3. Enter the **Title** 'Detailed search strategies'.
4. Click **Finish**. In the *content pane*, the Appendices section will open and your appendix title will be shown. You can now enter text in the appendix.

Validating a review

Before publication, every review should be validated to make sure all sections have been completed and meet the requirements of The Cochrane Collaboration.

1. From the **Tools** menu, select **Validate as You Type**, or click the **Validate as You Type**  button on the toolbar. In the *outline pane*, any sections with problems identified will be underlined.
2. Hover the mouse over a section underlined in red. A **Validation error** message will appear. Validation errors must be corrected before publication.
3. Hover the mouse over a section underlined in blue. A **Validation warning** message will appear. It is not compulsory to correct Validation warnings.
4. From the **File** menu, select **Reports**, and then **Validation report**. A report will be displayed listing all the **Validation errors** and **Validation warnings**. You can choose to copy, print or save this report.
5. Each of the **Validation errors** and **Validation warnings** are linked to the relevant part of RevMan where editing is required. In the **Validation report**, click the first error listed (i.e. **Contact person**). Note how the **Contact person** window has opened in the *content pane* for you to enter the relevant details about the contact person of the review.
6. Go back to the **Validation report** and click **OK**.



Submitting a review for editorial approval

When you have completed the review, including the **Abstract** and **Plain language summary**, you will need to submit the review to your Cochrane Review Group (CRG) for editorial approval. You can select this option when checking the review into the Archie database, and the Managing Editor of your CRG will receive an automatic message advising that the review is ready. You will not be able to access your review during the editorial process.