



# Oral Health Group

## REVIEW UPDATES

### Why update a review?

The main aim of a Cochrane review is to provide the 'best available' and most up-to-date evidence that can be used by consumers, clinicians and policy makers to bring about improvements in health care. Clinical practice guidelines are often based on Cochrane or other systematic reviews and increasingly funding agencies internationally are requiring systematic reviews to justify the need for new clinical trials (and other forms of research). As a result, in the last decade the number of systematic reviews published either electronically (through The Cochrane Collaboration) or in paper journals has greatly increased.

However, since evidence on a given subject is generally dynamic and continually evolving as new research becomes available, systematic reviews run the risk of becoming out of date and even misleading. To date, there is little empirical data available to allow informed decisions about what is a reasonable and efficient approach to updating evidence in Cochrane reviews, although some guidelines do exist.

We do know that incorporating additional studies as they become available may, on occasions, change the results of a review. However, there is a risk that updating evidence too frequently may result in introducing a different form of bias related to the slower publication (or even non-publication) of studies with negative and inconclusive results.

You may be able to gauge from doing the review whether the research relevant to your review is being published frequently, suggesting your review should be updated sooner, or if you should wait a while.

In addition, other developments in your research field may result in you needing to update your review. Some examples may be better tools or markers for characterising subgroups, new treatment regimens and/or comparisons, or new outcome measures (or refined measurement methods of existing outcomes).

In contrast, there may be areas where new evidence or data are not emerging and a review prepared many years earlier is still current and valuable. In these cases updating your review may be unnecessary and wasteful.

Cochrane reviews are unique in that reviewers are committed to not only preparing systematic reviews of evidence but also to maintaining (and updating) these reviews on a regular basis. The current recommendation is that your review should be updated at least every two years, or else a commentary added to it to explain why the update has not been done.

## How to update your review

The process of updating a Cochrane review will depend on the structure of the original review and the amount of new data available since the previous publication of the review. Probably the key factor in updating your review is to periodically update your literature search to assess if there are any new studies relevant to your review question. The Oral Health Group will be able to give you help with this, sending you new trials and giving you access to the Group's Trials Register. The Group will also be able to help you with keeping an eye on the Cochrane Central Register of Controlled Trials (CENTRAL), published in *The Cochrane Library*.

- If new trials are identified, they need to be assessed for inclusion in your review using the same process (and form) as your original review. If they are to be included, data are extracted and entered into RevMan, and risk of bias assessed. Do not forget to update your results text, discussion, conclusions, and abstract accounting for the new evidence, and highlight any differences it may have made in the 'What's New' section of your review.
- Sometimes updating your review results in new outcomes or comparisons being added. If this is the case, your original data extraction forms may need to be altered or extended, and piloted again. If this is the case, it might be necessary to go back to the original included trials and check that they did not include any information relevant to this new outcome or comparison.
- Another possible update to a review is more methodological. As systematic review methodology advances, and the techniques available in RevMan are extended, it may be possible to perform additional analyses or strengthen existing ones not available in an earlier version of your review (i.e. with the release of RevMan 5 in 2008, 'Risk of bias' and 'Summary of findings' tables should now be included in review updates).

There is variability about when and if your updated review should again go through the process of editorial review. If your update involves no further analysis or change of result, it may not need to be refereed externally and therefore it will only be sent to the editorial team for comments. However if there are new analyses and changes to conclusion, the same pre-publication process that was followed for your original review is likely to be repeated (editorial and external peer review).

## Update terminology – updates, amendments and citations

Any change to a Cochrane review is either an update or an amendment. An update must involve a search for new studies. Any other change to a Cochrane review is an amendment.

To be classed as an update of a Cochrane review, the review must include the findings from a more recent search than the previous published review. Relevant sections of the review should be updated accordingly. A review is still considered to be updated even if the search did not identify any additional studies. If this is the case, you should still update the date of the search strategy and indicate in the 'What's New' section of your review that a search has been done, resulting in no additions or changes to your review.

Update reviews are highlighted (using a 'flag') as 'New search' in the *Cochrane Database of Systematic Reviews (CDSR)*. If the update leads to changes to the conclusions it will be further highlighted in the *CDSR* using the flag 'Conclusions changed'.

Each publication of a Cochrane review or protocol has a current citation version. For *reviews*, citation versions are considered to be major new publications and result in entries in reference databases such as MEDLINE and Science Citation Index (SCI).

Some reviews undergo important changes (updates or amendments) that warrant new citations in the *CDSR* and new MEDLINE and SCI records (e.g. changes to conclusions, authors or correcting serious errors). We call these new citation versions.

<b>Review</b>	<b>Update - new citation</b>	<b>Update - no new citation</b>	<b>Amendment - new citation</b>	<b>Amendment - no new citation</b>
New search, new trials, changes to conclusions	<b>X</b>			
New search, new authors, no change to conclusion	<b>X</b>			
New search, no new trials		<b>X</b>		
New search, new trials, no change to conclusion		<b>X</b>		
New search, new trials, no change to conclusions or authorship		<b>X</b>		
Correction of serious error in citation - conclusions not changed (Erratum)			<b>X</b>	
Correction of serious errors in conclusion (Erratum)			<b>X</b>	
Correcting minor error				<b>X</b>
Change in methodology (e.g. risk of bias tables, SoF tables)				<b>X</b>

## Cochrane policy

From the Cochrane Policy Manual:

### 2.2.2.2 Policy on updating reviews and converting protocols

It is Collaboration policy that reviews should either be updated within two years or should have a commentary added to explain why this is done less frequently. It is also Collaboration policy that protocols that have not been converted into full reviews within two years should generally be withdrawn from the *Cochrane Database of Systematic Reviews*.

[*Note:* The two-year term should commence from the date of first publication.]

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While time consuming and ongoing, the process of updating Cochrane reviews is one of the key factors setting them apart from almost all other reviews. You need to carefully plan how and when you are going to update your review, and who will take responsibility to ensure it happens with full support from the Oral Health Group.

## References

Higgins JPT, Green S, Scholten RJPM. Chapter 3: Maintaining reviews: updates, amendments and feedback. In: Higgins JPT, Green S (editors). *Cochrane Handbook for Systematic Reviews of Interventions*. Version 5.0.1 [updated September 2008]. The Cochrane Collaboration, 2008. Available from [www.cochrane-handbook.org](http://www.cochrane-handbook.org).

The Cochrane Collaboration. The Cochrane Policy Manual Issue 4, 2009 [updated 13 August 2009]. ([www.cochrane.org/admin/manual.htm](http://www.cochrane.org/admin/manual.htm)).