

Key considerations when updating older PEN content

- 1. International content** - as you are looking at the existing PEN questions and/or Background content please look to see if existing PEN recommendations in the KPP and Background content is Canada specific e.g. follow Canada's Food Guide. If so, modify it to be international in scope (applicable to all of our partner countries – Australia, Canada and the United Kingdom). Depending on the topic, refer to our International Guideline Collections which may help with making the recommendations international: http://www.pennutrition.com/international_guidelines_collection.aspx
To see an example please see the recommendation to follow Healthy Eating Guidelines in the Practice Guidance section of the Key Practice Point 1 or 2: <http://www.pennutrition.com/KnowledgePathway.aspx?kpid=3009&pqcatid=146&pqid=3003>
Other international guidelines to check - NHMRC, N.I.C.E. Health Canada, maybe European guidelines available but they must be in synch with the evidence in PEN. Partner countries will be asked to share any appropriate guidelines they are aware of related to the topic area.
- 2. Plagiarism** - when you sign your “contract / statement of work ” to be an author you are agreeing that you will not plagiarize content. You give assurances that proper acknowledgement of the work of others has been included in the PEN[®] content. Please read the PEN Plagiarism Guidelines before signing your author agreement: <http://www.pennutrition.com/WriterGuide.aspx>
- 3. Questions** - is the question the right questions to ask or does it need tweaking? Is it too broad or too narrow? Is it in PICO format? Is it Background information and should be moved to the Background document? In some cases, rewording the question to include the population supported by the evidence may be warranted. From your search on the topic, see if new practice questions should be generated from the new evidence that would make the knowledge pathway more complete. Consider the topic in full and be sure it covers all that is needed to adequately and fully guide practice. This can be discussed with your PEN mentor.
- 4. Searching** – you want it to be robust but refined, document your search strategy for each question in the WORD document you have been given to update – develop a list of search terms used to answer the practice question and list databases that were searched. (PubMed MeSH Database can help you identify search terms: <http://www.ncbi.nlm.nih.gov/mesh>)
- 5. Filtered Literature** - remember to use a filtered literature approach for searching evidence – look for systematic reviews, international guidelines and/or policies, then recent primary research, using the hierarchy of evidence (PubMed Clinical Queries can help with your search: <http://www.ncbi.nlm.nih.gov/pubmed/clinical> The PEN hierarchy of evidence is

available on the PEN training module – Quick Review of Study Designs: <http://www.pennutrition.com/WriterGuide.aspx>) and in the Power Point Presentation - PEN Writer Brief Orientation: Tips and Tools. Narrative Reviews are not used for evidence but can be used for Background information, to find articles you may not have found in your search and for practical information. If you have found systematic reviews and/or CPG's and primary research, make certain to check if the primary research has been included in the systematic reviews as you don't want to duplicate the research being used for evidence.

6. **Evidence statements** - look at existing evidence used to answer the question – are all of the evidence statements still relevant to keep or is there newer, stronger evidence that you found to support the Key Practice Points and answer the question? If so, delete those older evidence statements and the applicable references. If the older evidence statements are still relevant, you may need to update these to provide more details as described in #8. When you include a new systematic review check to see if any of the old references (evidence statements) have been included in the new review. If so they can be eliminated.

Evidence statements are more detailed now than in the early days of the PEN database. Write an Evidence Statement for **each** article taking into consideration the following guidelines and see newer PEN content for examples:

Summarize the article taking into consideration:

- Type of study
- Population studied and # of subjects
- Key inclusion / exclusion criteria
- Methods and interventions
- If diet included how was it assessed and by whom
- Key study results that answers the practice question
- Authors' main conclusions versus yours
- Limitations – authors versus yours
- Any notable sources of bias
- Differentiate authors' conclusions and limitations from yours by reciting the reference number after the authors' main conclusions/limitations and before you write your conclusions and critical appraisal.

7. **Key Practice Points** - now that all the evidence you are going to use has been summarized, modify the Key Practice Points (KPPs) as appropriate. Are all of the Key Practice Points still relevant? Do you need to add new ones?

We have a new format for Key Practice Points. The following information is taken from the PEN Writer's Guide:

Generally there will be two parts to the KPP: Evidence Synthesis and Practice Guidance.

Supporting research and/or evidence is provided in the Evidence Statements and additional details are provided in the Comments or Rationale sections. If the Evidence Synthesis is very practical, e.g. where there is a lack of scientific evidence and expert opinion or clinical practice guidelines are used, there may not be a need for a separate Practice Guidance section.

- A. **Evidence Synthesis (ES)** should consist of clear statements reflecting the evidence used to answer the question. Clear language should be used when possible. Supporting research and/or evidence is provided in the Evidence Statements. When crafting the ES, consider including the following information (as summarized from the evidence):
- study design
 - population (if guidance targets a specific group, e.g. age, gender)
 - key conclusion/answer to the practice question – specify dose/amounts if applicable e.g. x amount of a supplement daily
 - limitations of the evidence may be included if critical e.g. if safety of intervention has not been assessed, in this case they would also be included in the evidence statements
 - future research needed/suggested if critical to clarify or enhance the understanding of the issue

Evidence syntheses are given a Grade of Evidence using the PEN[®] Evidence Grading Checklist (Appendix 5). Note that if conclusions in the evidence synthesis have more than one grade of evidence, the grade should be indicated after each conclusion.

- B. **Practice Guidance (PG)** includes the practical information needed to answer the practice question and guide practitioners. Its content can be derived from the Evidence Statements, Comments and Rationale sections. Every effort should be made to use short sentences and clear language. The PG section should be written with the expectation that this content will be used by dietitians when explaining or discussing the topic with clients, or adapted for education materials such as handouts. Use techniques to enable ease of reading. For example, create white space by inserting line spaces between paragraphs to separate different topics, and use bullets for lists. The PG will be inserted into the toolkit, exactly as it is written and formatted in the KPP. A grade of evidence is not applied to this section; however, all PG content must be derived from referenced material from the evidence, comments or rationale sections. The PG can include:
- context for the topic / issue (can include brief rationale or reasoning)
 - recommendation/conclusion
 - Some information from the ES may be repeated here.
 - A few words to reflect the quality of the evidence informing practice guidance (e.g. “limited evidence suggests...”). Use

wording consistent with PEN[®]'s Evidence Grading Checklist
(Appendix 5)

- additional practical information such as pros and cons, risk/benefit, if safety has not be evaluated yet, convenience and burden, costs, nutrient information, patients' value and preferences, health status, co-morbidities, lifestyle, culture etc.
- links to standard international collections
(http://www.pennutrition.com/international_guidelines_collection.aspx) that help guide practice, as appropriate to the topic, such as Healthy Eating Guidelines and Dietary Reference Values.

NOTE: It is recognized that there are situations where no evidence is available to guide practice, although there are common practices. Information or recommendations related to common practice can only be included in the KPP if it is referenced. However, recommendations to follow evidence-based nutrition guidelines, such as healthy eating guidelines or DRI/DRVs can be included when appropriate. Including such guidelines would most commonly occur in prevention-type PQs. You may also want to check Clinical Trials Registry to see if there are any trials ongoing. Information about ongoing trials can be added to the comments section.

When discussing specific nutrient requirements or healthy eating guidelines in a KPP and there are known partner country differences, link PEN[®] users to the appropriate collection in the International Guideline Collections:
http://www.pennutrition.com/international_guidelines_collection.aspx

Example of a clear, succinct KPP incorporating one of the International Guideline Collections:

Evidence Synthesis

Short-term studies suggest that a high sodium intake is the main contributor to **hypercalciuria**. Reducing sodium and consuming adequate calcium can decrease urinary calcium and oxalate excretion in adults (men and women) with hypercalciuria, which may contribute to a decreased recurrence of calcium oxalate stones. [C]

No clinical trials were identified that evaluated the effects of modified dietary calcium or sodium alone or in combination on stone recurrence. Limited evidence from one long-term clinical trial suggests that a diet comprised of normal to high calcium (1200 mg/day), reduced sodium (1150 mg/day) and low animal protein (50 g/day) can reduce stone recurrence compared to a low calcium diet (400 mg/day) in men with a history of calcium oxalate stones. [C]

No studies have evaluated the effects of calcium supplements in individuals with a history of kidney stones. [D]

Practice Guidance

Reducing sodium intake and consuming adequate calcium can decrease urinary calcium and oxalate excretion. Limited evidence suggests that to reduce the risk of calcium oxalate stones in adults with a history kidney stones, individuals should:

- Consume adequate dietary calcium to achieve the [Dietary Reference Value](#) for calcium.
- Obtain adequate calcium through calcium-rich foods. The effects of calcium supplements have not been evaluated.
- Reduce sodium intake to achieve the [Dietary Reference Value](#) for sodium.

8. **Comment and Rationale** - is there a Comment and/or Rationale section – if yes, update as appropriate. If none exist, create one. These sections will help inform the Practice Guidance sections of the Key Practice Points.
 9. **Background** - does the Background document need updating?
 10. **Tools and Resources** – are they all still appropriate? Are they consistent with the new evidence? Identify if there are any new ones to add. For more details please review - PEN® Guidelines for Third Party Tool/Resource (T/R) Approval located in the PEN Writer’s Guide and Training Modules section:
http://www.pennutrition.com/resources/PEN_resources/PEN%20Writer%20Training%20Modules/PENGuidelinesforToolResourceApprovalNov2013.pdf
 11. **References** – new ones added should be in the accepted PEN format:
Said SA, Droste HT, Derks S, Gerrits CJ, Fast JH. Down syndrome associated with hypothyroidism and chronic pericardial effusion: echocardiographic follow-up. Neth Heart J. 2007;15(2):67-70. Abstract available from:
<http://www.ncbi.nlm.nih.gov/pubmed/17612663>
- Note:** PEN format for references follows the National Library of Medicine if you are using a citation manager.
12. Send an early draft of your work to your PEN mentor / Responsible Admin to get feedback before you go too far.