

Process to Develop or Update a PEN Client Handout

PEN System and Client Handout Overview

The PEN system is an evidence-based decision support resource developed by Dietitians of Canada. It is designed to help dietitians keep pace with food and nutrition research. The PEN system provides knowledge pathways on a variety of topics relevant to everyday practice, where PEN authors identify relevant literature from various sources, and then critically appraise, grade and synthesize that literature into key practice points to answer specific practice questions.

PEN client handouts provide written eating guideline information related to a specific health condition or topic area. They are focused on Canadian content and are available in English and French. Handouts help to empower clients to be active participants in their health care. They also:

- reinforce verbal learning
- increase awareness or knowledge
- develop or enhance skills
- change a health behaviour
- decrease anxiety.

Client handouts are written in clear language and reflect Canada's diverse culture. They include:

- an overview of the issue/topic or condition as it relates to nutrition - what the client needs to know, tips and ideas for behaviour change
- specifics or scope of the diet/eating pattern
- food lists – which include some cultural food choices including Chinese, Spanish, Punjabi, Gujarati, Hindi, Tamil and Urdu, Vietnamese, Farsi and Korean
- additional resources/websites that are national in scope, such as Health Canada's Canada Food Guide

The content in the PEN System forms the foundation of PEN client handout information. Information is translated into consumer language with the purpose of helping clients learn how to prevent and/or manage their health condition.

Assignment Learning Outcomes

- Students translate evidence to create a knowledge product (client handout) using the PEN System process (**does**).
- Professional development in the area of health literacy, including plain language.
- Experience in tool development that has potential to help clients make healthy behaviour changes/make healthy food choice decisions.

In developing a handout/fact sheet, students must decide what is the most important information to include, organize it, and communicate it in their own words using the information derived from the PEN System.

Assignment

Educators can use the current PEN handout review process for developing a class assignment centered around reviewing PEN Client handouts. Students can develop or revise these evidence-based client materials as a class assignment using the evidence in the PEN System and clear writing principles as described below.

Educators can follow these steps to create this assignment:

1. Identify student(s) to work on topics. This might be an individual or group course or practicum assignment.
2. Determine the handout topic to develop or update.

RESOURCE | PEN current handouts

- [PEN Client Handout Collection](#)

3. Determine the best approach to assignments i.e. pairing or grouping of students, assignment scope.
4. Create an assignment and assign student(s) the client handout topic to develop or update.

The general process used to review a PEN client handout follows, which can be adapted into an assignment:

- Content within a client handout is primarily based on the evidence within the PEN database.
 - If key information is not available in PEN, see [Appendix A](#). Information added to a handout should not contradict what is currently stated in the PEN database.
- The most straightforward way to update information is to use [Track Changes in the MS Word](#) document containing the PEN System client handout information.
- Follow PEN client handout format and style: refer to [Appendix B](#) for Handout Template and [Appendix C](#) for Metric System Equivalents for Units of Measure to use when reviewing client handouts.
- All key content within the handout should be referenced with the specific PEN practice questions, PEN background or other information used to ensure information is evidence-based
 - Referencing can be documented within the handout copy, either as a reference list and numbered in the document or through use of WORD reference footnotes. For example:

A vegan eating pattern is healthy for people at any age, including children and teenagers. (1,2)

Reference List

1. Academy of Nutrition and Dietetics. Position of the Academy of Nutrition and Dietetics: Vegetarian Diets. (Dec 2016). Available from: <https://www.eatrightpro.org/-/media/eatrightpro-files/practice/position-and-practice-papers/position-papers/vegetarian-diet.pdf>. Accessed 15 Sep 2021
2. Dietitians of Canada. PEN. Do vegetarian and/or vegan diets support normal growth and development in infants, children and adolescents? (7 Dec 2020). Accessed 9 Sep 2021

Of note, the references will not appear on the final handout but needed for the review process to attest to cited information.

- Use this Client Handout Review Checklist to help in the review:

CLIENT HANDOUT REVIEW CHECKLIST

[] Is your handout based on PEN System evidence?

- All key/bottom line messages relevant to the client regarding the topic are based on PEN System evidence.
- If key information is not available in PEN, refer to [Appendix A](#). Information added to a handout should not contradict what is currently stated in the PEN database.

[] Does your handout follow plain/clear writing principles:¹

- Organization:
 - use headings/titles and subtitles that are clear and flow from one idea to the next
 - use bullets to highlight key messages and to avoid large blocks of print
- Flow:
 - present ideas in a sequence that makes sense to the reader
 - content should flow from simple to complex and follow a logical order - positive to negative, general to specific and most to least important
- Structure
 - paragraphs:
 - limit paragraph length to three or fewer sentences
 - convey one important topic or concept per paragraph
 - start each paragraph with a strong sentence that emphasizes the topic
 - use short sentences (about 10 words per sentence).
 - use heading to break up main points
 - use concrete examples to clarify ideas
 - avoid extra words, such as “please” and using jargon or slang
- Writing style:
 - positive conversational tone

¹ Adapted from PEN Client Handout Writers Guide, 2021

- speak to the reader; use 'you' and in an active voice
- use words rather than symbols ('chicken and fish' rather than 'chicken/fish')
- use the present tense
- use familiar, everyday words with three or fewer syllables unless unavoidable.

RESOURCE: Learn more

- Universal precautions approach to the provision of health information - [AHRQ Health Literacy Universal Precautions Toolkit](#)
- PEN System [Health Literacy Knowledge Pathway](#)
- [Plain Language Checklist](#) - SickKids Hospital
- [National Health Institutes - Plain Language Checklist](#)

5. Consider creating a rubric for assessing the assignment. See [Appendix D](#) for a sample rubric which you are welcome to adapt based on your course and assignment objectives.
6. (optional) Peer review
Ideally, handouts should be reviewed by both practicing dietitians and their clients with the nutrition condition. Information that has been developed from the client's perspective and is evidenced-based will provide the best resource. Ways to obtain client information includes a survey, interview or through focus groups with clients to get their feedback. The key questions to ask are:
 - Are the words easy to read?
 - Is the information clear?
 - Was the information helpful?
 - Does the material answer the client's questions?
 - Would they like more or less information?

See [Appendix E](#) for a sample feedback form.

For this assignment it could be other students in the class or friends/parents that review the handout as a peer review exercise.

RESOURCE | The PEN Team is here to help!

The [PEN team](#) can support this assignment to create or update a PEN client handout in the following ways:

- Provide a list of PEN priority handouts that need updating or developing.
- Act as a resource for the student / intern /educator.

QUESTIONS?

Respond to your Responsible Administrator through the PCMS or contact the PEN Resource Manager at jane.bellman@dietitians.ca

Appendix A

Including Information in PEN Client Handouts When Evidence is Out of Date or Unavailable in the PEN Database

The PEN database is the primary source of information for developing client handouts. This includes content found in practice questions, practice guidance toolkits, evidence summaries and backgrounders.

However, to assist the development or revision of a client handout, external resources may be used when information is not available in PEN. Examples include but are not limited to: nutrient or product information, practical examples, food safety information, definitions of conditions, background information on foods and medical conditions, general healthy eating advice, or specific condition related nutrition advice.

Outlined below are different categories of information often included on the handouts with recommended sources and processes.

Definitions (i.e. foods, medical conditions) and standard medical information (i.e. risk factors, symptoms, description of condition):

- Use a current, reliable, well-recognized source of information. Good sources include but are not limited to: government websites, dictionaries (Oxford, Merriam), well established medical websites (i.e. Merck, WebMD). For a more extensive list see section below titled: Examples of Acceptable Sources When Proving Content.
- Wikipedia is not considered a reliable source of information and should not be used as a reference.

Nutrient or Product Information

- Provide generic information whenever possible.
- Use Canadian Nutrient File (CNF) whenever possible. Health Canada: The Canadian Nutrient File (2015 Edition): <https://food-nutrition.canada.ca/cnf-fce/index-eng.jsp>
- If nutrient information is not available in the CNF, other options include:
 - o Bowes and Church's Food Values of Portions Commonly Used
 - o Product Nutrition Facts Table
 - o Product website
 - o If Canadian data is not available use USDA FoodData Central <https://fdc.nal.usda.gov/>
 - Note: There are different fortification laws and products in the US which may result in different nutrient values than what would be expected in the equivalent Canadian product.

Nutrition advice or recommendations not found in the PEN database (i.e. topics outside of PEN's scope of service, no Knowledge Pathway, lack of evidence, or information in PEN is not current). (This excludes commonly accepted nutrition advice/ information).

Examples of Acceptable Sources when providing content^[1]:

- Merck Manual <http://www.merck.com/pubs/>
- DRI reports which are online at the National Academies Press (NAP) <http://www.nap.edu/>
- Health Canada site <http://www.hc-sc.gc.ca/index-eng.php>
- Health Canada Office of Nutrition Policy and Promotion <http://www.hcsc.gc.ca/fn-an/index-eng.php>
- Health Canada, Natural Health Products Directorate <http://www.hc-sc.gc.ca/dhp-mps/prodnatur/index-eng.php>
- Public Health Agency of Canada <http://www.phac-aspc.gc.ca/index-eng.php>
- Canadian Food Inspection Agency: <http://www.inspection.gc.ca>
- Statistics Canada <http://www.statcan.gc.ca/start-debut-eng.html>
- eMedicine from Medscape <http://emedicine.medscape.com/>
- National Library of Medicine (contains Medline, PubMed and more): <http://www.nlm.nih.gov/>
- WebMD <http://www.webmd.com/>
- Department of Nutrition. Harvard School of Public Health <http://www.hsph.harvard.edu/nutritionsource/>
- The Stanford Health Library. Health Conditions <http://healthlibrary.stanford.edu/resources/bodysystems>
- Mayo Clinic <http://www.mayoclinic.com/>
- Medline Plus <http://www.nlm.nih.gov/medlineplus/healthtopics.html>
- National Center for Complementary and Alternative Medicine <http://nccam.nih.gov/>
- Disease-related association websites such as:
 - Diabetes Canada <http://www.diabetes.ca/>
 - Canadian Celiac Association <http://www.celiac.ca>
 - Heart and Stroke Foundation of Canada <http://www.heartandstroke.ca>
 - The Kidney Foundation of Canada: <http://www.kidney.ca> and National Kidney Foundation: <http://www.kidney.org>

Appendix B

Client Handout Template

Introduction

- Briefly covers the condition/subject matter. The introduction should be succinct and cover only relevant information for the client. It does not have the actual title of Introduction.



Steps you can take

- Provides dietary steps that the client needs to take to manage their condition. Include practical tips to achieve the goal.

Special Considerations (optional)

- Includes important nutritional information on the topic that is related.



Additional Resources

This list should only contain **key resources relevant to the topic**. This can include:

- Other PEN client handouts and Food Lists
- Canadian/national resources (i.e. Health Canada)

Appendix C

Metric System Equivalents for Units of Measure

Approximate Metric Equivalents to Canadian Household Measures and Abbreviations

Length

Inches (in) <i>Imperial</i>	Millimeter (mm) Centimeter (cm) <i>Metric</i>
1/8 in	3 mm
1/4 in	6 mm
1/2 in	1 cm
1 in	2.5 cm
2 in	5 cm

Mass

Ounces (oz) <i>Imperial</i>	Grams (g) <i>Metric</i>	Pound (lb) <i>Imperial</i>
1 oz	30 g	
16 oz	454 g	1 lb

Volume

Liquid measures

Cups	Milliliters (mL) <i>Metric</i>	Ounces (oz) <i>Imperial</i>	Grams (g) <i>Metric</i>
1 cup	250 mL	8 oz	250 g
$\frac{3}{4}$ cup	175 mL*	6 oz	175 g
$\frac{2}{3}$ cup	150 mL	5 oz	150 g
$\frac{1}{2}$ cup	125 mL	4 oz	125 g
$\frac{1}{3}$ cup	75 mL	2.5 oz	75 g
$\frac{1}{4}$ cup	60 mL	2 oz	60 g

Small liquid measures

Tablespoons (Tbsp) Teaspoons (tsp)	Milliliters (mL) <i>Metric</i>	Ounces (oz) <i>Imperial</i>	Grams (g) <i>Metric</i>
2 Tbsp	30 mL	1 oz	30 g
1 Tbsp	15 mL	$\frac{1}{2}$ oz	15 g
1 tsp	5 mL		5 g
$\frac{1}{2}$ tsp	2 mL		2 g
$\frac{1}{4}$ tsp	1 mL		1 g

Dry measures

Cups	Millilitres (mL) <i>Metric</i>	Ounces (oz) <i>Imperial</i>	Grams (g) <i>Metric</i>
1 cup	250 mL	8 oz	Varies
$\frac{3}{4}$ cup	175 mL*	6 oz	
$\frac{2}{3}$ cup	150 mL	5 oz	
$\frac{1}{2}$ cup	125 mL	4 oz	
$\frac{1}{3}$ cup	75 mL	2.5 oz	
$\frac{1}{4}$ cup	60 mL	2 oz	

Small dry measures

Tablespoons (Tbsp) Teaspoons (tsp)	Milliliters (mL) <i>Metric</i>	Ounces (oz) <i>Imperial</i>	Grams (g) <i>Metric</i>
2 Tbsp	30 mL	1 oz	Varies
1 Tbsp	15 mL	$\frac{1}{2}$ oz	
1 tsp	5 mL		
$\frac{1}{2}$ tsp	2 mL		
$\frac{1}{4}$ tsp	1 mL		

Alcohol Equivalent Measures^[2]:

Definitions of a Canadian standard drink

These Guidelines for "standard drinks" of beer, wine and spirits are based upon sizes that contain 17.05 mL or 13.45 g of pure alcohol. The following are estimated to equal one standard drink:

- 341 mL (12 oz.) bottle of 5% beer, cider or cooler
- 142 mL (5 oz.) glass of 12% wine
- 43 mL (1.5 oz.) shot of 40% spirits

If detail in a handout is needed, consider more information from updated 2018 guidelines, such as:

- 10 drinks a week for women, with no more than 2 drinks a day most days
- 15 drinks a week for men, with no more than 3 drinks a day most days
- Plan non-drinking days every week to avoid developing a habit.

[1] taken from Appendix 3, PEN Writers Guide

[2] Low-Risk Drinking Guidelines: <http://www.lrdg.net/guidelines.html>

Appendix D

Sample Client Handout Rubric

Category	4 points	3 points	2 points	1 points	Score
Message Clarity	Main ideas and key messages are clear and easily to understand for a consumer; Intended to inform or change behaviour.	Some of the main ideas or key messages are unclear or missing.	Both main ideas and messages are unclear; missing.	Topic and/or main ideas are absent or very unclear.	
Details	Details support the main idea (need to know) without distracting with extra information.	Detail is added to support each main idea with minimal extras.	More is needed for understanding. Some are distracting.	Very little detail is provided for the main ideas and understanding is limited.	
Content - Accuracy	At least 3 accurate facts/concepts are available in the handout based on PEN System content.	2 accurate facts are displayed.	1 accurate fact displayed.	Content is not based on PEN System information.	
Graphics - Relevance	The graphics, if used (suggest royalty free images) represent information appropriately and are culturally appropriate	Most graphics represent the information appropriately	All graphics relate to the topic but are not culturally appropriate	Graphics do not relate to the topic and/or not culturally appropriate	

Category	4 points	3 points	2 points	1 points	Score
Design /layout	<p>The design/layout is very clear; visually appealing</p> <p>Contains subheadings</p>	<p>The design/layout is clear; looks ok visually</p> <p>Contains some subheadings</p>	<p>The design/layout is not totally clear; visually cluttered</p> <p>Minimal use of subheadings</p>	<p>The design/layout is unclear; visually unappealing</p> <p>No subheadings</p>	
Grammar and Spelling	<p>There are no grammatical or spelling errors</p>	<p>There are 1-2 grammatical or spelling errors</p>	<p>There are 2-3 grammatical or spelling errors</p>	<p>There are more than 3 or more grammatical or spelling errors</p>	
Accurate Referencing	<p>Referencing is provided for all images and content information.</p>	<p>Referencing is provided for some images and content information.</p>	<p>Referencing is provided sporadically.</p>	<p>Referencing not provided.</p>	
Total	28	21	14	7	/28

Appendix E

Sample Feedback Form - for dietitians to use with their clients

Tell us what you think!

After reviewing the handout please answer the following questions.

The handout provides information I need to know to manage my diet. Yes No Unsure

Comments

The handout is easy to read. Yes No Unsure

Comments

I understood the information in the handout. Yes No Unsure

Comments

What I like the most in the handout is:

What I like the least about the handout is:

I found the resource list in the *Additional Resources* section helpful. Yes No Unsure

Information that needs to be added or changed in this handout to improve it includes:

Thank you for your feedback!