1.6 Publishing Research

After nutrition researchers have obtained their results, they want to disseminate them, or let people know what they found. The primary way they do this is by publishing their results in journals. The researchers put together a paper explaining their experiment and findings in a journal article. An article’s primary components are normally an introduction, abstract, methods, results, and discussion/conclusion. They submit the paper to a chosen journal and the journal editor then selects two expert researchers who will critically review and edit the article. These reviewers make sure that research published in journals is of good quality and of interest to readers. In more rigorous journals the article might also need to meet a certain theme of an issue that a journal wants to publish. This is a rigorous process that is humorously depicted by this cartoon.

Web Link

Peer Review Process

To give you an idea of how rigorous this process is, let's consider some major nutrition journals.

Journal of Nutrition (JN)
American Journal of Clinical Nutrition (AJCN)
Journal of the Academy of Nutrition and Dietetics (formerly Journal of the American Dietetic Association)
Nutrition Reviews
Annual Reviews of Nutrition
British Journal of Nutrition
European Journal of Clinical Nutrition

There are two major nutrition societies in the US: The American Society for Nutrition (ASN) and the American Dietetic Association (ADA). ASN publishes the Journal of Nutrition and the American Journal of Clinical Nutrition, while the Academy of Nutrition and Dietetics (formerly the American Dietetic Association) publishes the Journal of the Academy of Nutrition and Dietetics. If you want to see more about the major nutrition societies, use the following links.

Web Links

American Society for Nutrition
Academy of Nutrition and Dietetics

The following table contains 2 measures, impact factor and acceptance rate for these journals. The impact factor is a measure of influence of the journal. This measure indicates how many
people read the articles that are published in that journal. The acceptance rate is the % of articles that are submitted that are actually accepted for publication.

Table 1.61 Selected nutrition journal impact factors and acceptance rates

<table>
<thead>
<tr>
<th>Journal</th>
<th>Impact Factor</th>
<th>Acceptance Rate</th>
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<tbody>
<tr>
<td>Annual Reviews of Nutrition</td>
<td>8.2</td>
<td></td>
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<tr>
<td>American Journal of Clinical Nutrition</td>
<td>6.7</td>
<td>28%</td>
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<tr>
<td>Journal of Nutrition</td>
<td>3.6</td>
<td>33%</td>
</tr>
<tr>
<td>Nutrition Reviews</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>Journal of the Academy of Nutrition and Dietetics</td>
<td>2.9</td>
<td></td>
</tr>
<tr>
<td>British Journal of Nutrition</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td>European Journal of Clinical Nutrition</td>
<td>2.7</td>
<td>40%</td>
</tr>
</tbody>
</table>

The acceptance rate for three of these journals ranged from 28-40%. Thus, the majority of submitted articles are rejected and sent back to the researchers. To put nutrition journals in perspective, some of the top medical and science journals with a broad following have impact factors as high as 75 and an acceptance rate of 5-10%.

Hopefully these numbers help you understand that peer review is a rigorous process where peer reviewers "tear the article to pieces."

Figure 1.61 Dr. Lindshield's article after peer review

They do not physically shred the article (it is all done online), but there are often extensive revisions to make (maybe even multiple times) before the paper can be published, if you're so lucky. Generally, the more difficult it is to get a paper accepted into a journal, the more solid
the research must be. Most of the information on the internet has not gone through peer review and should be explored with some caution.

The following video clearly depicts the peer review process. There is also a diagram that explains how the peer review process works.

**Web Links**
- Video: Peer Review in 5 minutes (5:11)
- Diagram of the Peer Review Process

**References & Links**

**Links**
- Peer Review Process - http://community.acs.org/journals/acbcct/cs/Portals/0/wiki/PeerReview.jpg
- Academy of Nutrition and Dietetics - http://www.eatright.org/
- Diagram of the Peer Review Process - http://www.elsevier.com/reviewers/peer-review/peer-review-diagram