What is a peer-reviewed article?

An article that was reviewed by experts before it was published.

Why does that matter?

Peer review implies a lot about the level of scholarship and the quality of the information in the article. This kind of article is often written by teams of researchers, is more detailed, and uses more technical language than what you see in the news. For example, let’s compare two articles about the current outbreak of the Ebola virus in Africa.

<table>
<thead>
<tr>
<th>Publication:</th>
<th>Time Magazine</th>
<th>Journal of Infectious Diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article Title:</td>
<td>After Ebola: Why the Worst Outbreak Ever Is a Warning of What Could Come Next</td>
<td>Assessment of the Risk of Ebola Virus Transmission from Bodily Fluids and Fomites</td>
</tr>
<tr>
<td>Authors:</td>
<td>2, no special qualifications</td>
<td>9, all of whom work at medical schools &amp; research hospitals</td>
</tr>
<tr>
<td>Format:</td>
<td>Title is written in a Petri dish (for shock value?) Full-page photo of a doctor in protective clothing Smaller photos of a meeting at the CDC and scenes from 3 African countries Text is divided into 4 “Lessons”: Mind the Animals, It’s a Contagious World, Strengthen Homeland Defense, and Get Ready to Surge (Simple, everyday language)</td>
<td>Abstract of main points of the article Methods used in the study 2 tables of data Results Discussion 15 references to related research articles</td>
</tr>
</tbody>
</table>

The article in *Time* is useful as a quick summary of the current situation. The article in *Journal of Infectious Diseases* goes into much greater depth regarding which bodily fluids are most likely to store and transmit the virus.

Why take the trouble to read the peer-reviewed article?

Lots of reasons:
- Written by the people who collected and analyzed the data
- Data reviewed by experts
- Reference list is a good source of additional information
- Practice evaluating the authors’ arguments
- Grow your vocabulary

Although Ebola virus (EBOV) is transmitted by unprotected physical contact with infected persons, few data exist on which specific bodily fluids are infected or on the risk of transmission. Therefore, we tested various clinical specimens from 24 laboratory-confirmed cases of Ebola hemorrhagic fever, as well as environmental specimens collected from an isolation ward, for the presence of EBOV. Virus was detected by culture and/or reverse-transcription polymerase chain reaction in 14 of 16 clinical specimens (including saliva, stool, semen, breast milk, tears, nasal blood, and a skin swab) and in 2 of 3 environmental specimens. We conclude that EBOV is shed in a wide variety of bodily fluids during the acute period of illness but that the risk of transmission from fomites in an isolation ward and from convalescent patients is low when currently recommended infection control guidelines for the viral hemorrhagic fevers are followed.

The above image shows the technical language in the abstract from a peer-reviewed article. To the right, the dramatic title page for the article in Time magazine.