

Scientific literature can be **primary** or **secondary**

**Primary literature:** reports of original research → articles written to present findings on new scientific discoveries or describe earlier work to acknowledge it and place new findings in the proper perspective.

**Secondary literature:** includes review articles, books, editorials, practice guidelines, and other forms of publication in which original research information is reviewed.

An article published in a **peer-reviewed journal** is more valued than one which is not.

# Strategies for reading journal articles

1. Determine **the topic** by reading the **title** and the **abstract**: are the authors trying to answer a specific question, explain observations, present theoretical model of a process, or something else?

2. Read the **introduction** trying to answer these questions:

- why did the authors carry out this work?
- what are the main hypothesis?
- what was previously known about the topic?
- what are the objective of the current work?

3. Read the **results** section:

- look first at the subheadings and scan the topic sentence and figures of each paragraph,
- try to understand what are the main findings

4. Read the **discussion**:

- the authors typically present their conclusions and describe how results of the study support these conclusions
- were the hypotheses supported?
- what were the important findings?

5. Read the **material and methods** section

Read the article several times....each time you read the article you will understand a little more

## How to find primary references relevant to your topic

**Medline** (medical literature analysis and retrieval system online)  
Compiled by the United States National Library of Medicine

bibliographic database of life sciences and biomedical information  
It includes bibliographic information on articles from academic journals covering much of the literature in biology, medicine...

Free – searchable via PubMed

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**ISI Web of Knowledge** on line academic database provided by Thomson Scientific's Institute for Scientific Information.  
It provides access to many databases and other resources such as Web of Science – Science citation index.

Licensed to Institutions such as Universities

# PubMed

**PubMed** is a free search engine for accessing the [MEDLINE database](#) of citations, abstracts and some full text articles on life sciences and biomedical topics.

<http://www.ncbi.nlm.nih.gov/pmc/>

To search PubMed, you can simply enter search terms in the search box. PubMed contains many records, so be as specific as possible

PubMed-Tutorial: <http://www.nlm.nih.gov/bsd/disted/pubmed.html>

# Scientific article publication

a multi step process

1. Submit the article to a specific journal
2. Editors consider if the article is suitable to be considered for the journal
3. Peer review
4. Acceptance/rejection/major-minor modifications

Costs!!!