

Read

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Pronunciation: [reed]

Definition

In next-generation sequencing

[\[https://www.genomicseducation.hee.nhs.uk/glossary/sequencing/\]](https://www.genomicseducation.hee.nhs.uk/glossary/sequencing/)

, a read refers to the DNA

[\[https://www.genomicseducation.hee.nhs.uk/glossary/deoxyribonucleic-acid-dna/\]](https://www.genomicseducation.hee.nhs.uk/glossary/deoxyribonucleic-acid-dna/) sequence

[\[https://www.genomicseducation.hee.nhs.uk/glossary/sequence/\]](https://www.genomicseducation.hee.nhs.uk/glossary/sequence/)

from one fragment (a small section of DNA).

Use in clinical context

Most next-generation sequencing technologies fragment the genome

[\[https://www.genomicseducation.hee.nhs.uk/glossary/genome/\]](https://www.genomicseducation.hee.nhs.uk/glossary/genome/)

prior to sequencing, and each sequenced fragment produces a read. The length of the read and how many are produced will depend on fragment size and the type of technology being used. As the fragments of DNA usually overlap, the reads can be pieced back together to reconstruct the genome. There are other next-generation sequencing methods that do not fragment the genome;

DEFINITION OF THE DAY

Pertinent findings

The findings from genome sequencing that directly relate to the clinical question/disease being investigated; it also can be known as primary findings or main findings.

[Full](#)

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are called long-read sequencing as they
produce much longer reads.

Bioinformatician

[<https://www.genomicseducation.hee.nhs.uk/glossary/bioinformatician/>]

| Deoxyribonucleic acid (DNA)

[<https://www.genomicseducation.hee.nhs.uk/glossary/deoxyribonucleic-acid-dna/>] | Next generation sequencing

[<https://www.genomicseducation.hee.nhs.uk/glossary/next-generation-sequencing/>] | Read depth

[<https://www.genomicseducation.hee.nhs.uk/glossary/read-depth/>] | Read length

[<https://www.genomicseducation.hee.nhs.uk/glossary/read-length/>] | Sequence

[<https://www.genomicseducation.hee.nhs.uk/glossary/sequence/>]

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Genome
Sequencing:
Decoding
the
Language of
Life and
Health

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Last updated on 31st May, 2019

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