

**BOOK FREE CLASS** ([/byjus-classes-book-a-free-60-minutes-class/registration/](https://byjus.com/byjus-classes-book-a-free-60-minutes-class/registration/))  
**COMPETITIVE EXAMS**

**BUY A COURSE** (<https://shop.byjus.com/>)

+919243500460  
(tel:919243500460)

[Biology \(/biology/\)](#) [Biology Article \(/biology/articles/\)](#) [Biology Syllabus \(/biology/biology-syllabus/\)](#) [Important Diagrams \(/biology/important-diagrams/\)](#)

[Biology Important Questions](#) [Biology Projects \(/cbse/biology-projects/\)](#) [Biology Practical Notes](#) [FAQ's \(/biology/frequently-asked-questions/\)](#)

[MCQ's \(/biology/biology-mcqs/\)](#) [25 Important Topics in Biology \(/biology/25-important-topics-in-biology/\)](#) [Life Cycle \(/biology/life-cycle/\)](#)

[Biology Root Words](#)

Type your search



[Biology \(/biology/\)](#) > [Biology Article \(/biology/articles/\)](#) > [Polyembryony \(/biology/polyembryony/\)](#)



([https://byjus.com/byjus-classes-book-a-free-demo-class/registration/?utm\\_source=website&utm\\_medium=biology&utm\\_campaign=k10topbannerwithteacher](https://byjus.com/byjus-classes-book-a-free-demo-class/registration/?utm_source=website&utm_medium=biology&utm_campaign=k10topbannerwithteacher))

## Polyembryony



This is a natural phenomenon, quite common in both dicotyledons and monocotyledons.

### What is Polyembryony?

**As per the name Polyembryony – it refers to the development of many embryos.**

When two or more than two embryos develop from a single fertilized egg, then this phenomenon is known as Polyembryony. In the case of humans, it results in forming two identical twins. This phenomenon is found both in plants and animals.

The best example of Polyembryony in the animal kingdom is the nine-banded armadillo. It is a medium-sized mammal found in certain parts of America and this wild species gives

[https://byjus.com/byjus-classes-book-a-free-60-minutes-class/registration/?utm\\_campaign=mobile-fixed-button-book-class&utm\\_source=we](https://byjus.com/byjus-classes-book-a-free-60-minutes-class/registration/?utm_campaign=mobile-fixed-button-book-class&utm_source=we)

**Also Read** [Reproduction in Animals. \(https://byjus.com/biology/reproduction-in-animals/\)](https://byjus.com/biology/reproduction-in-animals/)

Let us learn more about the Polyembryony in plants, types and its importance.

## Polyembryony in Plants

The production of two or more than two embryos from a single seed or fertilized egg is termed as Polyembryony. In plants, this phenomenon is caused either due to the fertilization of one or more than one embryonic sac or due to the origination of embryos outside of the embryonic sac.

This natural phenomenon was first discovered in the year 1719 by Antonie van Leeuwenhoek in Citrus plant seeds.

Also read: Fruit and Seed Formation Without Fertilization (<https://byjus.com/biology/seed-formation/>)

## Types of Polyembryony

There are two different types of polyembryony:

1. Induced Polyembryony – experimentally induced
2. Spontaneous Polyembryony – naturally occurring

According to Webber, polyembryony is classified into three different types :

1. **Cleavage Polyembryony:**
2. In the case of this type, a single fertilized egg gives rise to a number of embryos.
3. **Simple polyembryony:** In this type, a number of embryos develop as a result of the fertilization of several archegonia.
4. **Rosette polyembryony:** Additional embryos develop from the rosette cells in certain gymnosperms, this type of polyembryony is termed rosette polyembryony.

Explore more: Sexual Reproduction In Plants (<https://byjus.com/biology/sexual-reproduction-plants/>)

## Polyembryony in Different Groups of Gymnosperms

- **Polyembryony in Cycadales**

In Cycadales, polyembryony is not a usual phenomenon. But in 1964, Rao reported the occurrence of simple polyembryony in *Cycas Circinalis*. In this species, two adjacent archegonia of the same ovule sometimes grow independently into two embryos and also rarely into two seedlings.

- **Polyembryony in Coniferales**

In Case of Coniferales, simple polyembryony occurs in the majority of its members and here the number of embryos varies from 2 to many. It has been reported that cleavage polyembryony occurs in several groups of Pinaceae, Taxodiaceae, Cupressaceae, and Podocarpaceae. In *Cupressus*, both simple and cleavage polyembryony are common.

- **Polyembryony in Taxales**

Various archegonia are present in the female gametophyte (<https://byjus.com/biology/gametophyte/>) of *Taxus*. Simple polyembryony occurs due to the fertilization of many of the archegonia eggs. But, out of many, only a single embryo attains maturity. Cleavage of suspensor cells occurs. The suspensors separate from each other, and each of them may carry one or more embryonal units. Sometimes, groups of meristematic cells are observed at the base of the suspensor cells. These groups of cells are called the rosette embryos. Further development, however, does not take place in these embryos.

- **Polyembryony in Gnetales**

All Gnetales exhibit polyembryony. Polyembryony is found to be of very high order in *Gnetum*. In this group, there are not only several prothalli and zygotes in each seed, but there is a multiplication of embryos from each zygote by the branching of the primary

Learn more about Polyembryony, its types, process, significance and other related topics @ BYJU'S Biology (<https://byjus.com/biology/>)

BIOLOGY Related Links	
Smooth Endoplasmic Reticulum Function ( <a href="https://byjus.com/biology/endoplasmic-reticulum/">https://byjus.com/biology/endoplasmic-reticulum/</a> )	Different Types of Patterns ( <a href="https://byjus.com/biology/biodiversity-pattern-species/">https://byjus.com/biology/biodiversity-pattern-species/</a> )
Vitamin Information Chart ( <a href="https://byjus.com/biology/vitamins-types-sources/">https://byjus.com/biology/vitamins-types-sources/</a> )	Mitochondria Function ( <a href="https://byjus.com/biology/mitochondria/">https://byjus.com/biology/mitochondria/</a> )
Fauna Definition ( <a href="https://byjus.com/biology/flora-and-fauna/">https://byjus.com/biology/flora-and-fauna/</a> )	What is Bt ( <a href="https://byjus.com/biology/bt-crops/">https://byjus.com/biology/bt-crops/</a> )
Adaptation of Aquatic Animals ( <a href="https://byjus.com/biology/aquatic-ecosystem/">https://byjus.com/biology/aquatic-ecosystem/</a> )	Examples of Aggregate Fruits ( <a href="https://byjus.com/biology/fruit-formation-parts-types/">https://byjus.com/biology/fruit-formation-parts-types/</a> )
What are Pathogens ( <a href="https://byjus.com/biology/pathogen/">https://byjus.com/biology/pathogen/</a> )	What are Enzymes ( <a href="https://byjus.com/biology/enzymes/">https://byjus.com/biology/enzymes/</a> )

### 3 Comments

**lojain khan** JUNE 4, 2020 AT 10:04 AM ([HTTPS://BYJUS.COM/BIOLOGY/POLYEMBRYONY/#COMMENT-99602](https://byjus.com/biology/polyembryony/#comment-99602))

such a fruitful information thanks.

**REPLY ([HTTPS://BYJUS.COM/BIOLOGY/POLYEMBRYONY/?REPLYTOCOM=99602#RESPOND](https://byjus.com/biology/polyembryony/?replytocom=99602#respond))**

**SUPRIYA** AUGUST 19, 2020 AT 6:53 AM ([HTTPS://BYJUS.COM/BIOLOGY/POLYEMBRYONY/#COMMENT-140616](https://byjus.com/biology/polyembryony/#comment-140616))

such a brainly information  
THANK YOU!

**REPLY ([HTTPS://BYJUS.COM/BIOLOGY/POLYEMBRYONY/?REPLYTOCOM=140616#RESPOND](https://byjus.com/biology/polyembryony/?replytocom=140616#respond))**

**Jaison baskey** OCTOBER 12, 2020 AT 12:23 PM ([HTTPS://BYJUS.COM/BIOLOGY/POLYEMBRYONY/#COMMENT-181808](https://byjus.com/biology/polyembryony/#comment-181808))

**REPLY ([HTTPS://BYJUS.COM/BIOLOGY/POLYEMBRYONY/?REPLYTOCOM=181808#RESPOND](https://byjus.com/biology/polyembryony/?replytocom=181808#respond))**

fields are marked \*

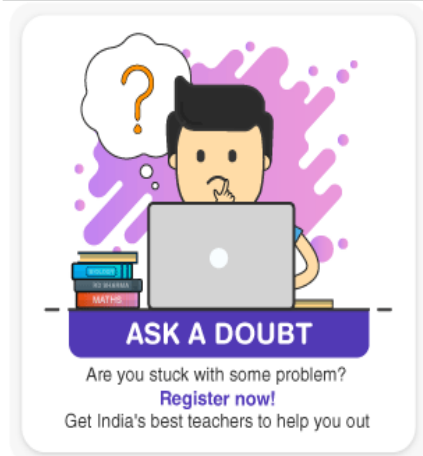
comment box.

([https://byjus.com/byjus-classes-book-a-free-demo-class/registration/?utm\\_source=website&utm\\_medium=biology&utm\\_campaign=sidebar](https://byjus.com/byjus-classes-book-a-free-demo-class/registration/?utm_source=website&utm_medium=biology&utm_campaign=sidebar))

Name \*

([https://byjus.com/byjus-classes-book-a-free-60-minutes-class/registration?utm\\_campaign=mobile-fixed-button-book-class&utm\\_source=we](https://byjus.com/byjus-classes-book-a-free-60-minutes-class/registration?utm_campaign=mobile-fixed-button-book-class&utm_source=we))

Email \*



(<https://students.byjus.com/oauth/authorize?>

[redirect\\_uri=https%3A%2F%2Flearn.byjus.com%2Fcallback%3Freferrer%3Dmx\\_Source\\_of\\_Lead%253DByjusWeb%2526mx\\_Campaign\\_Type%253D\\_UTM\\_CAMPAIGN\\_TYPE\\_9](https://students.byjus.com/oauth/authorize?redirect_uri=https%3A%2F%2Flearn.byjus.com%2Fcallback%3Freferrer%3Dmx_Source_of_Lead%253DByjusWeb%2526mx_Campaign_Type%253D_UTM_CAMPAIGN_TYPE_9)

### CBSE Sample Papers

- CBSE Sample Papers Class 8 Science  
(<https://Byjus.Com/Cbse-Sample-Papers-For-Class-8-Science/>)
- CBSE Sample Papers Class 9 Science  
(<https://Byjus.Com/Cbse-Sample-Papers-For-Class-9-Science/>)
- CBSE Sample Papers Class 10 Science  
(<https://Byjus.Com/Cbse-Sample-Papers-For-Class-10-Science/>)
- CBSE Sample Papers Class 11 Physics  
(<https://Byjus.Com/Cbse-Sample-Papers-For-Class-11-Physics/>)
- CBSE Sample Papers Class 11 Chemistry  
(<https://Byjus.Com/Cbse-Sample-Papers-For-Class-11-Chemistry/>)
- CBSE Sample Papers Class 11 Biology  
(<https://Byjus.Com/Cbse-Sample-Papers-For-Class-11-Biology/>)
- CBSE Sample Papers Class 12 Physics  
(<https://Byjus.Com/Cbse-Class-12-Sample-Papers-For-Physics/>)
- CBSE Sample Papers Class 12 Chemistry  
(<https://Byjus.Com/Cbse-Class-12-Sample-Papers-For-Chemistry/>)
- CBSE Sample Papers Class 12 Biology  
(<https://Byjus.Com/Cbse-Sample-Papers-For-Class-12-Biology/>)

### CBSE Previous Year Question Papers

- CBSE Previous Year Question Papers Class 10 Science (<https://Byjus.Com/Cbse-Study-Material/Class-10-Science-Previous-Year-Papers/>)
- CBSE Previous Year Question Papers Class 12 Physics (<https://Byjus.Com/Cbse-Study-Material/Previous-Year-Question-Paper-Physics-Free-Class-12-Cbse/>)

<https://byjus.com/biology/polyembryony/>

- CBSE Previous Year Question Papers Class 12 Chemistry (<https://byjus.com/cbse-study-material/cbse-previous-year-question-papers-class-12-chemistry-solved-pdf/>)
- CBSE Previous Year Question Papers Class 12 Biology (<https://byjus.com/cbse-study-material/last-5-years-question-papers-cbse-12th-biology/>)

### ICSE Sample Papers

- ICSE Sample Papers Class 8 Physics (<https://byjus.com/icse-sample-paper-for-class-8-physics/>)
- ICSE Sample Papers Class 8 Chemistry (<https://byjus.com/icse-sample-paper-for-class-8-chemistry/>)
- ICSE Sample Papers Class 8 Biology (<https://byjus.com/icse-sample-paper-for-class-8-biology/>)
- ICSE Sample Papers Class 9 Physics (<https://byjus.com/icse-sample-paper-for-class-9-physics/>)
- ICSE Sample Papers Class 9 Chemistry (<https://byjus.com/icse-class-9-chemistry-sample-papers/>)
- ICSE Sample Papers Class 9 Biology (<https://byjus.com/icse-sample-paper-for-class-9-biology/>)
- ICSE Sample Papers Class 10 Physics (<https://byjus.com/icse-sample-paper-for-class-10-physics/>)
- ICSE Sample Papers Class 10 Chemistry (<https://byjus.com/icse-class-10-chemistry-sample-papers/>)
- ICSE Sample Papers Class 10 Biology (<https://byjus.com/icse-sample-papers-for-class-10-biology/>)
- ISC Sample Papers Class 11 Physics (<https://byjus.com/isc-sample-papers-for-class-11-physics/>)
- ISC Sample Papers Class 11 Chemistry (<https://byjus.com/isc-class-11-chemistry-sample-papers/>)
- ISC Sample Papers Class 11 Biology (<https://byjus.com/isc-sample-papers-for-class-11-biology/>)
- ISC Sample Papers Class 12 Physics (<https://byjus.com/isc-sample-papers-for-class-12-physics/>)
- ISC Sample Papers Class 12 Chemistry (<https://byjus.com/isc-class-12-chemistry-sample-papers/>)
- ISC Sample Papers Class 12 Biology (<https://byjus.com/isc-sample-papers-for-class-12-biology/>)

CBSE Previous Year Question Papers Class 10 IAS (/ias/) JEE (/jee/) NEET (/neet/) Commerce (/commerce/) Bank Exam (/bank-exam/)  
NCERT Solutions (/ncert-solutions/) <https://Byjus.Com/Icse-Class-10-Physics-Previous-Year-Question-Papers/>

EXAMS

ICSE Previous Year Question Papers Class 10  
Chemistry (<https://Byjus.Com/Icse-Class-10-Chemistry-Previous-Year-Question-Papers/>)  
CAT Exam (/cat-exam-info/) IAS Exam (/ias-exam/) UPSC Syllabus (/ias/upsc-syllabus/) UPSC 2020 (/free-ias-prep/upsc-2020/)  
JEE Main Previous Year Question Papers Class 10 (/govt-exams/)  
Maths (<https://Byjus.Com/Icse-Class-10-Biology-Previous-Year-Question-Papers/>)

RESOURCES

Blog (<https://blog.byjus.com/>) Videos (/videos/) CBSE Sample Papers (/cbse/cbse-sample-papers/)  
CBSE Question Papers (/cbse-study-material/cbse-previous-year-question-paper/) DSSL (/about-dssl/)

ISC Previous Year Question Papers

EXAM PREPARATION

Free CAT Prep (/free-cat-prep/) Free IAS Prep (/free-ias-prep/) Maths (/maths/) Physics (/physics/) Chemistry (/chemistry/) Biology (/biology/)  
ISC Previous Year Question Papers Class 12  
Physics (<https://Byjus.Com/Isc-Class-12-Physics-Previous-Year-Question-Papers/>)

COMPANY

ISC Previous Year Question Papers Class 12  
About Us (/about-us/) Contact Us (/contact-us/) Student Feedback (/reviews/) Investors (/our-investors/) Careers (/careers-at-byjus/)  
BYJU'S Learning App - Student Stories - The Learning Tree (<https://blog.byjus.com/the-learning-tree/>)  
Faces of BYJU'S - Life at BYJU'S (<https://blog.byjus.com/life-at-byjus/>)  
ISC Previous Year Question Papers Class 12  
Biology (<https://Byjus.Com/Isc-Class-12-Biology-Previous-Year-Question-Papers/>)

FOLLOW US

(<https://www.facebook.com/byjuslearningapp/>) (<https://www.youtube.com/channel/UcKdW-LPU1Nnd2WRsfnDbUcA>)

(<https://www.linkedin.com/company/byjus>)

Join BYJU'S Learning Program

Free Textbook Solutions

(/textbook-solutions/)

Name   
Mobile Number   
NCERT Solutions (/ncert-solutions/) — NCERT Exemplar (/ncert-exemplar/) NCERT Solutions for Class 6 (/ncert-solutions-class-6/)  
NCERT Solutions for Class 7 (/ncert-solutions-class-7/) NCERT Solutions for Class 8 (/ncert-solutions-class-8/)  
City / Town   
NCERT Solutions for Class 9 (/ncert-solutions-class-9/) NCERT Solutions for Class 10 (/ncert-solutions-class-10/)  
NCERT Solutions for Class 11 (/ncert-solutions-class-11/) NCERT Solutions for Class 12 (/ncert-solutions-class-12/)  
Email Address   
RD Sharma Solutions (/rd-sharma-solutions/) RS Aggarwal Solutions (/rs-aggarwal-maths-solutions/) ICSE Selina Solutions (/icse/selina-solutions/)

Submit

State Boards

Maharashtra (/msbshse/) Gujarat (/gseb/) Tamil Nadu (/tn-board/) Karnataka (/kseeb/) Kerala (/kbpe/) Andhra Pradesh (/ap-board/)  
Telangana (/telangana-board/) Uttar Pradesh (/upmsp/) Bihar (/bihar-board/) Rajasthan (/rajasthan-board/) Madhya Pradesh (/mp-board/)

Disclaimer (<https://byjus.com/disclaimer/>) | Privacy Policy ([https://byjus.com/tnc\\_app/#privacydesc](https://byjus.com/tnc_app/#privacydesc)) | Terms of Services ([https://byjus.com/tnc\\_app/#tncdesc](https://byjus.com/tnc_app/#tncdesc)) |

Sitemap (<https://byjus.com/sitemap.xml>)

© 2020, BYJU'S. All rights reserved.