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## The Effect of Serum and Follicular Fluid Vitamin D on Intracytoplasmic Sperm Injection Outcome (Article)

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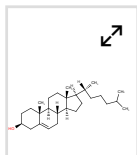
### Abstract

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Vitamin D is a cholesterol derived, fat soluble, steroid substance present in the body. It plays an important role in the female reproductive system and regulating its functions. It is believed that vitamin D improves the endometrial thickness. The relationship between the level of vitamin D and fertilization, embryo quality and Intracytoplasmic sperm injection outcome remains controversial till now. The aim of the study to assess the relation of vitamin D levels in serum and follicular fluid with Intracytoplasmic sperm injection outcome. Eighty-eight women were enrolled in this study. They were classified according to the cause of infertility into case group with female factor and control group with male factor. All women were undergoing Intracytoplasmic sperm injection procedure. Serum and follicular fluid vitamin D levels were measured on the day of oocyte retrieval. It was found that no significant differences in either serum or follicular fluid level of vitamin D between the case and control groups and higher serum and follicular fluid levels of vitamin D are associated with better pregnancy rates after Intracytoplasmic sperm injection. Further studies on vitamin D in male are required to prove its role in the Intracytoplasmic sperm injection. The present study concluded that no significant differences in either serum or follicular fluid level of vitamin D between the case and control groups and higher serum and follicular fluid levels of vitamin D are associated with better pregnancy rates after Intracytoplasmic sperm injection. © 2020

### Chemistry database information ⓘ

#### Substances



#### Author keywords

follicular fluid and Intracytoplasmic sperm injection

Vitamin D

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- 1 Skowrońska, P., Pastuszek, E., Kuczyński, W., Jaszczół, M., Kuć, P., Jakiel, G., Wocławek-Potocka, I., (...), Łukaszuk, K.  
The role of vitamin D in reproductive dysfunction in women – a systematic review  
([Open Access](#))

(2016) *Annals of Agricultural and Environmental Medicine*, 23 (4), pp. 671-676. Cited 23 times.  
<http://aaem.pl/fulltxt.php?CID=1226865>  
doi: 10.5604/12321966.1226865

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- 2 Anbar, N, Abdulateef, Khawla A  
Status of serum 25 hydroxyvitamin D and the prevalence of its deficiency in Iraqi healthy men: Age dependent study  
(2016) *Journal of Current Research*, 8 (3), pp. 28605-28609. Cited 2 times.  
2

- 3 Al-Hilali, K. A.  
Prevalence of Hypovitaminosis D in Adult Iraqi People Including Postmenopausal Women  
(2016) *Scientific Research Journal*, 4 (9), pp. 234-240.  
3

- 4 Ciepela, P., Dulęba, A.J., Kowaleczko, E., Chełstowski, K., Kurzawa, R.  
Vitamin D as a follicular marker of human oocyte quality and a serum marker of in vitro fertilization outcome ([Open Access](#))

(2018) *Journal of Assisted Reproduction and Genetics*, 35 (7), pp. 1265-1276. Cited 14 times.  
[www.wkap.nl/journalhome.htm/1058-0468](http://www.wkap.nl/journalhome.htm/1058-0468)  
doi: 10.1007/s10815-018-1179-4

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- 5 Banker, M., Sorathiya, D., Shah, S.  
Vitamin D deficiency does not influence reproductive outcomes of IVF-ICSI: A study of oocyte donors and recipients ([Open Access](#))

(2017) *Journal of Human Reproductive Sciences*, 10 (2), pp. 79-85. Cited 7 times.  
<http://www.jhrsonline.org>  
doi: 10.4103/jhrs.JHRS\_117\_16

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