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| Tested marine organisms | MeHg dose | Periods | Source |
| Juvenile zebrafish  (*Danio rerio*) | 2 μg L-1 | 28 d | Branco et al., 2012 |
| Larval zebrafish | 5, 25 μg L-1 | 72 h | Cuello et al., 2012 |
| Embryonic zebrafish | 5, 10, 50, 80, 100, 200, 500, 1000 μg L-1 | 96 h | Hassan et al., 2012 |
| 500 g-weighted rainbow trout (*Oncorhynchus mykiss*) | 0.6, 1.2, 2.4 μg L-1 | 120 min | Mozhdeganloo et al., 2015 |
| Embryonic medaka fish (*Oryzias latipes*) | 0.001, 0.01, 0.1, 1. 10 μM | 10 d | Dong et al., 2016 |
| Hermaphroditic protandrous gilthead seabream  (*Sparus aurata* L.) | 10 μg L-1 | 30 d | Guardiola et al., 2016 |
| Embryonic zebrafish | 0.01, 0.03, 0.1 μM | 24 h | Mora-Zamorano et al., 2016 |
| Adult zebrafish | 1, 15 μg L-1 | 72 h | Strungaru et al., 2018 |
| Juvenile large yellow croaker (*Pseudosciaena crocea*) | 0.25, 1.0, 4.0 μg L-1 | 30 d | Wu et al., 2018 |
| Juvenile grass carp  (*Ctenopharyngodon idella*) | 15 μg L-1 | 96 h | Baldissera et al., 2019 |
| Embryonic and adult zebrafish | Embryos: 5, 25 μg L-1;  Adult: 25 μg L-1 | 72h | Cabezas-Sanchez et al., 2019 |
| Embryonic-larval flounder (*Paralichthys olivaceus*) | 7, 11, 13, 15 μg L-1 | 128 h | Ren et al., 2019a |
| Larval flounder | 0.1, 1.0, 10.0 μg L-1 | 35 d | Ren et al., 2019b |
| Embryonic-larval large yellow croaker | 0.2, 1, 5, 10, 20 μg L-1 | 6 d | Yu et al., 2019 |
| Embryonic-larval zebrafish | 4, 40, 400 nM | 96 h | Zhu et al., 2019 |
| Juvenile flounder | 0.1, 1.0, 10.0, 20.0 μg L-1 | 30 d | Ren et al., 2020 |
| Two year old orange spotted grouper  (*Epinephelus coioides*) | 10, 20, 40, 80 μg L-1 | 30 d | Savari et al., 2020 |

**References**

Baldissera, M. D., Souza, C. F., Grings, M., Descovi, S. N., Henn, A. S., Flores, E. M. et al. (2019). Exposure to methylmercury chloride inhibits mitochondrial electron transport chain and phosphotransfer network in liver and gills of grass carp: Protective effects of diphenyl diselenide dietary supplementation as an alternative strategy for mercury toxicity. *Aquaculture* 509, 85-95. doi: 10.1016/j.aquaculture.2019.05.012

Branco, V., Canario, J., Lu, J., Holmgren, A., and Carvalho, C. (2012). Mercury and selenium interaction in vivo: Effects on thioredoxin reductase and glutathione peroxidase. *Free Radic. Biol. Med.* 52, 781-793. doi: 10.1016/j.freeradbiomed.2011.12.002

Cabezas-Sanchez, P., Rainieri, S., Conlledo, N., Barranco, A., Sanz-Landaluze, J., Camara, C., et al. (2019). Impact of selenium co-administration on methylmercury exposed eleutheroembryos and adult zebrafish (*Danio rerio*): Changes in bioaccumulation and gene expression. *Chemosphere* 236, 11. doi: 10.1016/j.chemosphere.2019.07.026

Cuello, S., Ximenez-Embun, P., Ruppen, I., Schonthaler, H. B., Ashman, K., Madrid, Y., et al. (2012). Analysis of protein expression in developmental toxicity induced by MeHg in zebrafish. *Analyst* 137, 5302-5311. doi: 10.1039/c2an35913h

Dong, W., Liu, J., Wei, L. X., Yang, J. F., Chernick, M., and Hinton, D. E. (2016). Developmental toxicity from exposure to various forms of mercury compounds in medaka fish (*Oryzias latipes*) embryos. *Peerj* 4, 17. doi: 10.7717/peerj.2282

Guardiola, F. A., Chaves-Pozo, E., Espinosa, C., Romero, D., Meseguer, J., Cuesta, A., et al. (2016). Mercury Accumulation, Structural Damages, and Antioxidant and Immune Status Changes in the Gilthead Seabream (*Sparus aurata* L.) Exposed to Methylmercury. *Arch. Environ. Contam. Toxicol.* 70, 734-746. doi: 10.1007/s00244-016-0268-6

Hassan, S. A., Moussa, E. A., and Abbott, L. C. (2012). The effect of methylmercury exposure on early central nervous system development in the zebrafish (*Danio rerio*) embryo. *J. Appl. Toxicol.* 32, 707-713. doi: 10.1002/jat.1675

Mora-Zamorano, F. X., Svoboda, K. R., and Carvan, M. J. (2016). The Nicotine-Evoked Locomotor Response: A Behavioral Paradigm for Toxicity Screening in Zebrafish (*Danio rerio*) Embryos and Eleutheroembryos Exposed to Methylmercury. *PloS One* 11, 15. doi: 10.1371/journal.pone.0154570

Mozhdeganloo, Z., Jafari, A. M., Koohi, M. K., and Heidarpour, M. (2015). Methylmercury-Induced Oxidative Stress in Rainbow Trout (*Oncorhynchus mykiss*) Liver: Ameliorating Effect of Vitamin C. *Biol. Trace Elem. Res.* 165, 103-109. doi: 10.1007/s12011-015-0241-7

Ren, Z. H., Cao, L., Huang, W., Liu, J. H., Cui, W. T., and Dou, S. Z. (2019). Toxicity test assay of waterborne methylmercury on the Japanese flounder (*Paralichthys olivaceus*) at embryonic-larval stages. *Bull. Environ. Contam. Toxicol.* 102, 770-777. doi: 10.1007/s00128-019-02619-9

Ren, Z. H., Liu, J. H., Huang, W., Cao, L., Cui, W. T., and Dou, S. Z. (2019). Antioxidant defenses and immune responses of flounder *Paralichthys olivaceus* larvae under methylmercury exposure. *Comp. Biochem. Physiol., Part C: Toxicol. Pharmacol.* 225, 11. doi: 10.1016/j.cbpc.2019.108589

Ren, Z. H., Liu, J. H., Dou, S. Z., Zhou, D. Y., Cui, W. T., Lv, Z. B., et al. (2020). Tissue-specific accumulation and antioxidant defenses in flounder (*Paralichthys olivaceus*) juveniles experimentally exposed to methylmercury. *Arch. Environ. Contam. Toxicol.* 79, 406-420. doi: 10.1007/s00244-020-00775-2

Savari, S., Safahieh, A., Archangi, B., Savari, A., and Abdi, R. (2020). The histopathological effect of methylmercury on the brain in orange spotted grouper (*Epinephelus coioides*) in Zangi Creek and laboratory. *Iran. J. Fish. Sci.* 19, 457-470. doi: 10.22092/ijfs.2019.118503

Strungaru, S. A., Robea, M. A., Plavan, G., Todirascu-Ciornea, E., Ciobica, A., and Nicoara, M. (2018). Acute exposure to methylmercury chloride induces fast changes in swimming performance, cognitive processes and oxidative stress of zebrafish (*Danio rerio*) as reference model for fish community. *J. Trace Elem. Med. Biol.* 47, 115-123. doi: 10.1016/j.jtemb.2018.01.019

Wu, F. Z., Huang, W., Liu, Q., Xu, X. Q., Zeng, J. N., Cao, L., et al. (2018). Responses of antioxidant defense and immune gene expression in early life stages of large yellow croaker (*Pseudosciaena crocea*) under methyl mercury exposure. *Front. Physiol.* 9, 10. doi: 10.3389/fphys.2018.01436

Yu, X., Wu, F. Z., Xu, X. Q., Chen, Q. Z., Huang, L., Tesfai, B.T., et al. (2019). Effects of short term methylmercury exposure on growth and development of the large yellow croaker embryos and larvae. *Front. Mar. Sci.* 6, 754. doi: 10.3389/fmars.2019.00754

Zhu, J., Wang, C. D., Gao, X. S., Zhu, J. S., Wang, L., Cao, S. Y., et al. (2019). Comparative effects of mercury chloride and methylmercury exposure on early neurodevelopment in zebrafish larvae. *RSC Adv.* 9, 10766-10775. doi: 10.1039/c9ra00770a