



Whole Eggs and Muscle

Why is eating eggs important?

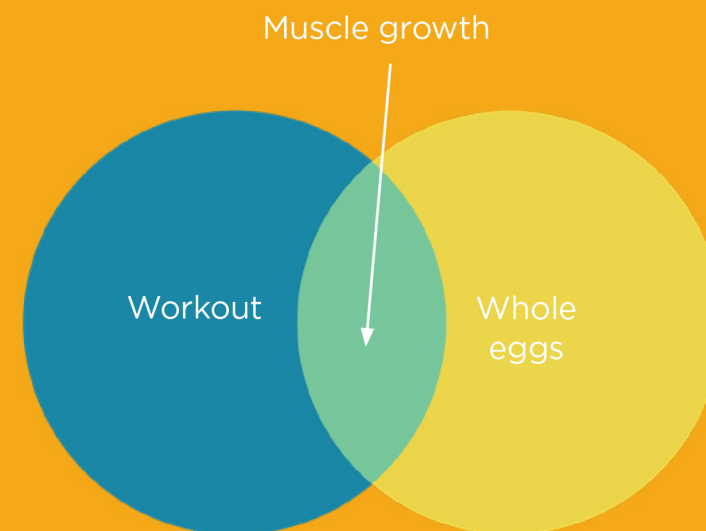
Recent research has found that eating whole eggs, rather than egg whites alone, after weight training, leads to similar, if not better, muscle building post-workout^{1,2}. Whole eggs may offer other advantages over egg whites alone, due to the action of non-protein components found in the whole food matrix that play important roles in muscle recovery and growth³.

Whole foods vs. supplements

Getting your protein from whole foods, rather than supplements or egg whites alone, may also have other benefits for athletes. Whole foods, such as eggs, contain a range of other essential nutrients in their natural food matrix which may have benefits for exercise recovery, muscle strength, body composition and overall health^{4,5}.

How many eggs should I eat?

Research to date indicates that to support post-exercise muscle building, a meal containing approximately 30g of protein should be consumed after a workout. A serve of eggs (2 large eggs), providing 13g of protein, can be a convenient source of protein for athletes.



1. van Vliet S, Shy EL, Abou Sawan S, Beals JW, West DW, Skinner SK, Ulanov AV, Li Z, Paluska SA, Parsons CM, Moore DR, Burd NA. Consumption of whole eggs promotes greater stimulation of postexercise muscle protein synthesis than consumption of isonitrogenous amounts of egg whites in young men. *Am J Clin Nutr*. 2017 Dec;106(6):1401-1412. doi: 10.3945/ajcn.117.1598552. **2.** Bagheri R, Hooshmand Moghadam B, Jo E, et al. Comparison of whole egg vs. egg white ingestion during 12 weeks of resistance training on skeletal muscle regulatory markers in resistance-trained men [published online ahead of print, 2020 Jun 24]. *Br J Nutr*. 2020;1-20. doi:10.1017/S0007114520002238 **3.** Abou Sawan S, van Vliet S, West DWD, Beals JW, Paluska SA, Burd NA, Moore DR. Whole egg, but not egg white, ingestion induces mTOR colocalization with the lysosome after resistance exercise. *Am J Physiol Cell Physiol*. 2018 Oct 1;315(4):C537-C543. doi: 10.1152/ajpcell.00225.2018. **4.** van Vliet, S., Beals, J., Martinez, I., Skinner, S. & Burd, N. Achieving Optimal Post-Exercise Muscle Protein Remodeling in Physically Active Adults through Whole Food Consumption. *Nutrients* 10, 224 (2018). **5.** Burd NA, Beals JW, Martinez IG, Salvador AF, Skinner SK. Food-First Approach to Enhance the Regulation of Post-exercise Skeletal Muscle Protein Synthesis and Remodeling. *Sports Med*. 2019 Feb;49(Suppl 1):59-68. doi: 10.1007/s40279-018-1009-y. PMID: 30671904; PMCID: PMC6445816.