

DAFTAR PUSTAKA

- Abiri, Vafa, M.R.. 2017. Vitamin D and sarcopenia. *Advance in Obesity Weight Management Control*. 2017;6(3):82-84.
- Al-Eisa ES, Alghadir AH, Gabr SA. 2016. Correlation between vitamin D levels and muscle fatigue risk factors based on physical activity in healthy older adults. *Clinical Intervension in Aging*; 11:513–522.
- Anderson P.H., O'Loughlin P.D., May B., Morris H.A. 2003. Quantification of mRNA for the vitamin D metabolizing enzymes CYP27B1 and CYP24 and vitamin D receptor in kidney using real-time reverse transcriptase-polymerase chain reaction. *Journal Molecular Endocrinology*. 31(1):123–32.
- Apandi M. 2018. *Sarkopenia*. In KOPAPDI XVII Surakarta 2018. Ed : Alwi, Purwanto B, Wijaya IP, Sukrisman L, Pitoyo CW, Putranto W, Prasetya D. Fakultas Kedokteran Universitas Sebelas Maret : Surakarta.
- Arik G. and Ulger Z. 2015. *Vitamin D In Sarcopenia: Understanding Its Role In Pathogenesis, Prevention And Treatment*. Elsevier's; G Model Eurger-; No. of Pages 7
- Bender D.A, 2016. *Micronutrients: Vitamin & Minerals* in Harpers Illustrated Biochemistry 30th ed. Pp.546-563. New York: Mc Graw Hill Education.
- Bickle, D.D. 2014. Vitamin D Metabolism, Mechanism of Action, and Clinical Applications. *Chemistry & Biology Review* ;21(3):319-29.
- Bischoff-Ferrari H.A, Dietrich T., Orav E.J., Hu F.B., Zhang Y., Karlson E.W., Dawson-Hughes B. 2004. Higher 25-hydroxyvitamin D concentrations are associated with better lower-extremity function in both active and inactive persons aged >60 y. *The American Journal of Clinical Nutrition*;80(3):752-8.
- Blackman M.R, Sorkin J.D, Münzer T., Bellantoni M.F., Busby-Whitehead J., Stevens T.E., Jayme J., O'Connor K.G., Christmas C.2002. Growth hormone and sex steroid administration in healthy aged women and men: a randomized controlled trial. *Journal of American medicine association*; 288(18):2282–92.
- Bua E.A., McKiernan S.H., Wanagat J., McKenzie D., Aiken J.M.. 2002. Mitochondrial abnormalities are more frequent in muscles undergoing sarcopenia. *Journal Applied Physiology*; 92(6):2617–24.

- Campbell W.W., Trappe T.A., Wolfe R.R., Evans W.J. 2001. The recommended dietary allowance for protein may not be adequate for older people to maintain skeletal muscle. *Journal Gerontology And Biology Science Medicine*; 56(6):M373–80.
- Ceglia L. and Harris S.S. 2013. Vitamin D and its role in skeletal muscle. *Calcified Tissue International-Springer Journal*. 92(2):151–62.
- Charifi N., Kadi F., Féasson L., Denis C. 2003. Effects of endurance training on satellite cell frequency in skeletal muscle of old men. *Muscle Nerve*; 28(1):87–92.
- Chen L.K, Liu L.K., Woo J., Assantachai P., Auyeung T.W., Bahyah K.S., Chou M.Y., *et al.* 2014. Sarcopenia in Asia: Consensus Report of the Asian Working Group for Sarcopenia. *Journal American Medicals Director Association* 15: 95-101.
- Chen Y., Zajac J.D., MacLean H.E. 2005. Androgen regulation of satellite cell function. *Journal of Endocrinology*; 186(1):21–31.
- Coggan A.R., Spina R.J., King D.S., Rogers M.A., Brown M., Nemeth P.M., Holloszy J.O. 1992. Skeletal muscle adaptations to endurance training in 60- to 70-yr-old men and women. *Journal Applied Physiology*; 72(5):1780–6
- Colón C.J, Vicenty M., Rodríguez F., Ferré G, Rivera P, Cintrón-Vélez, Frontera-Rodríguez. 2018. Muscle and Bone Mass Loss in the Elderly Population: Advances in diagnosis and treatment. *Journal of Biomedicine*; 3:40-49.
- Cruz-jentoft A., Baeyens J.P., Bauer J.M., Boirie Y., Cederholm T., Landi F. 2010. Sarcopenia: European consensus on definition and diagnosis, Report of the European Working Group on Sarcopenia in Older People. *Oxford Journal Age and ageing* 39(4): 412–423.
- Cruz-Jentoft A.J., Landi F., Topinkova E., Michel JP. 2010. Understanding sarcopenia as new geriatric syndrome. *Current opinion in clinical nutrition journal* 13 : 1-7.
- De-Jongh R.T, van-Schoor N.M., Lips, P. 2017. Changes in vitamin D endocrinology during aging in adults. *Mollecular Cell Endocrinology* 453:144-150
- Dirks-Naylor A.J and Edwards S. 2011. The effects of vitamin D on skeletal muscle function and cellular signaling. *Journal Steroid Biochemystry Moleculer Biology*. 125(3):159–68.
- Doherty T.J., Vandervoort A.A., Taylor A.W., Brown W.F. 1993. Effects of motor unit losses on strength in older men and women. *Journal Applied Physiology*; 74(2):868–74.
- Doherty T.J. 2003. Physiology of Aging, Invited Review : Aging and Sarcopenia. *Journal of Applied Physiology* 95 : 1717-1727.

- Drey M. 2010. Sarcopenia – pathophysiology and clinical relevance. *Wien Med Wochenschr* 161/17–18: 402–408.
- Dupont-Versteegden E.E. 2005. Apoptosis in muscle atrophy: relevance to sarcopenia. *Experimental Gerontology*; 40(6):473–81.
- Edström E., Altun M., Bergman E., Johnson H., Kullberg S., Ramírez-León V., Ulfhake B. 2007. Factors contributing to neuromuscular impairment and sarcopenia during aging. *Physiology of Behaviour*; 92(1–2):129–35.
- Edwards MH, Gregson, Patel, Jameson, C Harvey, Sayer, M Dennison, Cooper. 2013. *Journal of Bone and Mineral Research* ; 28:11, pp 2295-2304.
- Fiatarone MA, O'Neill EF, Ryan ND, Clements KM, Solares GR, Nelson ME, Roberts SB, Kehayias JJ, Lipsitz LA, Evans WJ. 1994. Exercise training and nutritional supplementation for physical frailty in very elderly people. *The New England Journal of Medicine*; 330(25):1769-75.
- Fornelli G, Isaia G, D'Amelio. 2016. Ageing, muscle and bone. *Geriatric Bone Journal*, 2016; 64:75-80.
- Galvão D.A, Taaffe DR, Spry N, Newton RU. 2007. Exercise can prevent and even reverse adverse effects of androgen suppression treatment in men with prostate cancer. *Prostate Cancer Prostatic* ;10(4):340-6.
- Genazzani A.D., Lanzoni C, Genazzani A.R. 2007. Might DHEA be considered a beneficial replacement therapy in the elderly? *.Drugs Aging*; 24(3):173–85.
- Gombart A.F .2009.The Vitamin D-antimicrobial peptide Pathway and Its role in Protection Against Infection. *Future Microbiology*, 4(9): 1151-1165.
- Goulet ED, et al. 2007. No difference in insulin sensitivity between healthy postmenopausal women with or without sarcopenia: a pilot study. *Applied Physiology Nutritional Metabolism*; 32(3):426–33.
- Guillet C and Boirie Y. Insulin resistance: a contributing factor to age-related muscle mass loss?. *Diabetes Metabolic*. 2005; 31(Spec No 2):5S20–5S26.
- Guillet C, Prod'homme M, Balage M, Gachon P, Giraudet C, Morin L, Grizard J, Boirie Y. 2004. Impaired anabolic response of muscle protein synthesis is associated with S6K1 dysregulation in elderly humans. *Faseb Journal*. 2004; 18(13):1586–7.
- Halfon M., Phan O., and Teta D. 2015. Vitamin D: A Review on Its Effects on Muscle Strength, the Risk of Fall, and Frailty. Hindawi Publishing; 2015:953241.
- Hamilton B. 2010. Vitamin D and Human Skeletal Muscle. *Scandinavian Journal Medicine Science Sports*; 20(2): 182–190.

- Haussler M.R, Whitfield G.K, Kaneko I, Hsieh D., Jurutka P.W.2013. Molecular Mechanism of Vitamin D Action. *Calcification Tissue International*, 92: 77-98.
- Hirani V., Cumming R.G, Naganathan V.2017. Longitudinal associations between vitamin D metabolites and sarcopenia in older Australian men: the concord health and aging in men project. *Journal Gerontology And Biology Science Medicine* 73(1):131-138.
- Hoffmann C and Weigert C. 2017. Skeletal Muscle as an Endocrine Organ: The Role of Myokines in Exercise Adaptations. *Cold Spring Harbour Perspective in Medicine* 1;7(11).
- Hollick M.F .2007.Vitamin D Deficiency. *The New England Journal of Medicine*. 357: 266-81.
- Hsu Y.H., Liang C., Liao M.C, Lin C., Yuk-Keung L. 2014. Association of cognitive impairment, depressive symptoms and sarcopenia among healthy older men in the veterans retirement community in southern Taiwan: A cross-sectional study. *Geriatrics Gerontology International*; 14 (Suppl. 1): 102–108.
- Leger-Guist'hau J., Domingues F., Miolanne M., F. Peyrol, L., Gerbaud, B. P., R. Minet Q.R., 2016. Low socio-economic status is a newly identified independent risk factor for poor vitamin D status in severely obese adults. *Journal of Human Nutrition and Dietetics* 30(2) 203-215.
- Jacques P.F, Felson D.T, Tucker K.L., Mahnken B., Wilson P.W., Rosenberg I.H., Rush D.1997. Plasma 25-hydroxyvitamin D and its determinants in an elderly population sample. *American Journal of Clinical Nutrition*; 66(4):929–36.
- Yun J.H, Kyung M.P, Lee M.J , Yang D.H. , Kim S.H., Lee, S.Y.2017. Vitamin D and Hypertension. *Electrolyte Blood Press* 15:1-11.
- A Seo J., Cho H, Chai R.. Eun, J.Y., Sin G.K., Kyung M. C.,2012. Association Between Visceral Obesity and Sarcopenia and Vitamin D Deficiency in Older Koreans: The Ansan Geriatric Study. *Journal of The American Geriatrics society* 60(4) 700-706.
- Kevorkian Rafi.2006. *Physiology of Aging in* : Pathy MSI, Sinclair AJ, Morley JE, Principle and Practice of Geriatric Medicine 4th edition. West Sussex : John Willey & Sons Ltd p37-46.
- Kim M.K, Baek, K.H., Ki-Ho S., Moo I.K, Park, C.L., Lee,W.Y., Ki W.O. 2011. Vitamin D Deficiency Is Associated with Sarcopenia in Older Koreans, Regardless of Obesity: The Fourth Korea National Health and Nutrition Examination Surveys (KNHANES IV) 2009. *Journal Clinical Endocrinology Metabolic*, 96(10):3250–3256

- Kim T.N, Yang S.J, Yoo H.J, Lim K.I, Kang H.J, Song W. 2009. Prevalence of sarcopenia and sarcopenic obesity in Korean adults: the Korean sarcopenic obesity study. *International Journal of Obesity*;33(8):885–92.
- Kirkwood, T. 2009. *Genetics of age dependent human disease*. In : Halter Jeffrey B, Ouslander Joseph G, Tinetti Mary E, Sudenski Stephanie, High Kevin P, Asthana Sanjay, Hazzard geriatric medicine and gerontology 6th edition. United states : McGraw-Hill p15-21.
- Kortebein P., Ferrando A., Lombeida J., Wolfe R., Evans W.J.2007. Effect of 10 days of bed rest on skeletal muscle in healthy older adults. *Journal of the American Medical Association*; 297(16):1772–4.
- Kweder, H and Eidi, H. 2018. Vitamin D deficiency in elderly: Risk factors and drugs impact on vitamin D status. *Avicenna Journal of Medicine*; 8(4): 139–146
- Landi F., 2012. Prevalence and risk factors of sarcopenia among nursing home older residents. *Journal Gerontology Biology Science Medicine* 2012;67(1):48–55
- Lange K.H., Isaksson F., Rasmussen M.H., Juul A, Bülow J, Kjaer M. 2001. GH administration and discontinuation in healthy elderly men: effects on body composition, GH-related serum markers, resting heart rate and resting oxygen uptake. *Clinical Endocrinology*; 55(1):77–86.
- Lau E.M, Lynn H.S, Woo J.W, Kwok T.C, Melton L.J. Prevalence of and risk factors for sarcopenia in elderly Chinese men and women. *Journal of Gerontology*. 2005;60A(2):213–6.
- Lauretani F., Bandinelli S., Bartali B., Di Iorio A., Giacomini V., Corsi A.M., Guralnik J.M, Ferrucci L.2006. Axonal degeneration affects muscle density in older men and women. *Neurobiology of Aging*; 27(8):1145–54.
- Lee W.J., Liu L.K., Peng L.N., Lin M.H., Chen L.K. 2013. Comparison of Sarcopenia defined by IWGS and EWGSOP criteria among older people : result from the I-Lan longitudinal aging Study. *Journal American Medicals Director Association* 14 : 528 e.1-528e.7.
- Li CH, Tsai-Chung L., Lin W.Y, Liu C.S, Hsu C.C, Hsiung C.A. 2015. Combined association of chronic disease and low skeletal muscle mass with physical performance in older adults in the Sarcopenia and Translational Aging Research in Taiwan (START) study. *Biomed Central Journal Geriatrics* 15:11.
- Martin AD, Bandinelli S., Bartali B., Rasmussen M.H . 1990. Anthropometric estimation of muscle mass in men. *Medical Science Sports and Exercise*; 22(5):729–33.

- Marzetti E, Leeuwenburgh C. 2006. Skeletal muscle apoptosis, sarcopenia and frailty at old age. *Experimental Gerontology*; 41(12):1234–8.
- Melton L.J., Khosla S., Crowson C.S., O'Connor M.K., O'Fallon W.M., Riggs BL. 2000. Epidemiology of sarcopenia. *Journal American of Geriatrics Society*. 2000; 48(6):625–30.
- Morley J.E, Kaiser F.E, Perry H.M., Patrick P, Morley PM, Stauber P.M, Vellas B., Baumgartner R.N., Garry P.J. 1997. Longitudinal changes in testosterone, luteinizing hormone, and folliclestimulating hormone in healthy older men. *Metabolism*; 46(4):410–3.
- Morley J.E., Baumgartner R.N., Roubenoff R., Mayer J., and Nair K.S. 2001. Sarcopenia. *Journal of Laboratory and Clinical Medicine* 137 : 231-243.
- Musarò A, McCullagh KJ, Naya FJ, Olson EN, Rosenthal N. 2000. IGF-1 induces skeletal myocyte hypertrophy through calcineurin in association with GATA-2 and NF-ATc1. *Nature*; 400(6744):581–5.
- Pfeifer M, Begerow B, Minne HW, Suppan K, Fahrleitner-Pammer A, Dobnig H. 2009. Effects of a long-term vitamin D and calcium supplementation on falls and parameters of muscle function in community-dwelling older individuals. *Osteoporosis International*;20(2):315-22.
- Plum LA and Deluca HF. 2010. *The Functional Metabolism and Molecular Biology of Vitamin D Action*. In: *Vitamin D Physiology, Molecular Biology, and Clinical Applications. 2nd Edition*. New York: Springer.
- Roland, Y and Vellas, B. 2010. *Sarcopenia. Brocklehurst's Textbook of Geriatri* : 587 - 593. Elsevier : philadelphia
- Roubenoff R. Catabolism of aging: is it an inflammatory process?. *Current Opinion in Clinical Nutrition & Metabolic Care*. 2003; 6(3):295–9.
- Roubenoff R. Sarcopenic obesity: does muscle loss cause fat gain? Lessons from rheumatoid arthritis and osteoarthritis. *Annual Yacad Science*.;904:553–7.
- Roubenoff R and Hughes V.A. 2000. Sarcopenia : Current concept. *The Journal of Gerontology Series A Biological sciences and medical sciences* 55A : M716-M724.
- Sakuma K., and Yamaguchi A. 2012. Sarcopenia and age-related endocrine function. *Hindawi Publishing Corporation International Journal of Endocrinology* 2012: 127362.
- Sanders K.M., Scott D., Ebeling P.R. 2014. Vitamin D deficiency and its role in muscle-bone interaction in elderly. *Current Osteoporosis Report* 12:74-81.

- Schrager M, Metter EJ, Simonsick EM, Ble A, Bandinelli S, Lauretani F, et al. Sarcopenic obesity and inflammation in the InCHIANTI study. *Journal Applied Physiology*. 2007;102:919–25.
- Schubert L, DeLuca HF. 2010. Hypophosphatemia is responsible for skeletal muscle weakness of vitamin D deficiency. *Archives of Biochemistry and Biophysics*. 500(2):157–61.
- Scott W, Stevens J, Binder-Macleod SA. 2001. Human skeletal muscle fiber type classifications. *Journal of Physical Therapy*;81(11):1810–6.
- Setiati, S. 2008. Pengaruh Paparan Sinar Ultraviolet B Bersumber dari Sinar Matahari terhadap Konsentrasi Vitamin D (25(OH)D) dan Hormon Paratiroid pada Perempuan Usia Lanjut Indonesia. *Jurnal Kesehatan Masyarakat Nasional* Vol. 2:4.
- Snijder, M.B., van Schoor, N.M., Pluijm, S.M.F., Visser M., Lips P. 2006. Vitamin D status in relation to one-year risk of recurrent falling in older men and women. *Journal of Clinical Endocrinology and Metabolism*; 91, 2980–2985.
- Stump CS, Short K.R, Bigelow M.L., Schimke J.M. 2003. Effect of insulin on human skeletal muscle mitochondrial ATP production, protein synthesis, and mRNA transcripts. *Proceedings of the National Academy of Sciences of the United States of America*; 100(13):7996–8001.
- Szulc P., Duboeuf F., Marchand F., Delmas P.D. 2004. Hormonal and lifestyle determinants of appendicular skeletal muscle mass in men: the MINOS study. *American Journal of Clinical Nutrition*; 80(2):496–503.
- Taaffe D.R, Harris T.B, Ferrucci L, Rowe J., Seeman T.E.2000. Cross-sectional and prospective relationships of interleukin-6 and C-reactive protein with physical performance in elderly persons: MacArthur studies of successful aging. *Journal Gerontology And Biology Science*, 55(12): M709–M715.
- Taylor S.N, Hollis B.W, Wagner C.L. 2011. Vitamin D Needs of Preterm Infants. *NeoReviews*; 10:12.
- Van den Berghe G, Van Roosbroeck D, Vanhove P, Wouters PJ, De Pourcq L, Bouillon R. 2003. Bone turnover in prolonged critical illness: effect of vitamin D. *Journal Clinical Endocrinology Metabolic* ;88(10):4623–32.
- Van der W., Löwik M.R, van den B. H, de Groot L.C, Haller J, Moreiras O, van Staveren W.A. 1995. Serum vitamin D concentrations among elderly people in Europe. *Lancet*; 346(8969):207-10.
- Visser, M., Deeg, D.J.H., Lips, P. 2003. Low vitamin D and high parathyroid hormone levels as determinants of loss of muscle strength and muscle mass (sarcopenia): the

Longitudinal Aging Study Amsterdam. *Journal of Clinical Endocrinology and Metabolism*; 88, 5766–5772.

Vitriana, D. and Nugraha, S.. 2016. Prevalensi Sarkopenia pada Lansia di Komunitas (Community Dwelling) berdasarkan Dua Nilai Cut-off Parameter Diagnosis. *Majalah Kedokteran Bandung*;48(3):164–70.

Volpi E, Kobayashi H, Sheffield-Moore M, Mittendorfer B, Wolfe RR. 2003. Essential amino acids are primarily responsible for the amino acid stimulation of muscle protein anabolism in healthy elderly adults. *American Journal Clinical Nutrition*;78(2):250-8.

World Health Organization .2002. *Proposed working definition of an older person in Africa for the MDS Project*. United Nations.

Wyskida M., Owczarek A. , Szybalska A. , Brzozowska. , Szczerbowska I. , Wieczorowska T., 2017. Socio-economic determinants of vitamin D deficiency in the older Polish population: results from the PolSenior study. *Public health nutrition* 21(11) 1995-2003.