**References**

1. 2008 Physical Activity Guidelines for Americans. U.S. Department of Health and Human Services; 2008

2. ACSM’s Guidelines for Exercise Testing and Prescription. 9th ed. Philadelphia (PA): Lippincott Williams & Wilkins; 2013

3. ACSM’s Resource Manual for Guidelines for Exercise Testing and Prescription. 7th ed. Philadelphia (PA): Lippincott Williams & Wilkins; 2013

4. Agin D, Gallagher D, Wang J, Heymsfield SB, Pierson RN, Kotler, D. P. Effects of whey protein and resistance exercise on body cell mass, muscle strength, and quality of life in women with HIV. *AIDS*. 2001;15(18):2431-40.

5. American College of Sports Medicine; American Heart Association. Physical activity and public health in older adults: recommendation from the American College of Sports Medicine and the American Heart Association. *Circulation.* 2007;116(9):1094-105.

6. American College of Sports Medicine and the American Diabetes Association: Joint Position Statement. Exercise and Type 2 Diabetes. *Med Sci Sports Exerc.* 2010;42(12):2282-303

7. American College of Sports Medicine position stand. Progression models in resistance training for healthy adults. *Med Sci Sports Exerc.* 2009;41(3):687-708.

8. American College of Sports Medicine position stand. Quantity and quality of exercise for developing and maintaining cardiorespiratory, musculoskeletal, and neuromotor fitness in apparently healthy adults: guidance for prescribing exercise. *Med Sci Sports Exerc.* 2011;43(7):1334-59.

9. American Diabetes Association Web site. Hypoglycemia. [Internet]. Alexandria (VA): American Diabetes Association; [cited 2013 Sep 4]. Available from: <http://www.diabetes.org/living-with-diabetes/treatment-and-care/blood-glucose-control/hypoglycemia-low-blood.html>

10. Amorosa V, Synnestvedt M, Gross R, *et al.* A tale of 2 epidemics: the intersection between obesity and HIV infection in Philadelphia. *J Acquir Immune Defic Syndr.* 2005;39(5):557-561.

11. Bhasin S, Storer TW, Javanbakht M, *et al.* Testosterone replacement and resistance exercise in HIV-infected men with weight loss and low testosterone levels. *JAMA.* 2000;283(6):763-70.

12. Cade WT, Peralta L, Keyser RE. Aerobic capacity in late adolescents infected with HIV and controls. *Dev Neurorehabil.* 2002;5(3):161-9.

13. Carnero EA, Amati F, Pinto RS. *et al*. Regional fat mobilization and training type on sedentary, premenopausal and overweight and obese women. *Obesity*. 2013;21(7):

14. Carr, A. HIV lipodystrophy: risk factors, pathogenesis, diagnosis and management. *AIDS.* 2003;17(suppl 1):S141–8.

15. Chen D, Misra A, Garg A. Lipodystrophy in Human Immunodeficiency Virus-Infected Patients. *J Clin Endocrinol Metab*. 2002;87(11):4845–56.

16. Chow DC, Wood R, Choi J, *et al.* Cardiovagal autonomic function in HIV-infected patients with unsuppressed HIV viremia. *HIV Clin Trials*. 2011;12(3):141-50.

17. Colberg SR, Swain DP, Vinik AI. Use of heart rate reserve and rating of perceived exertion to prescribe exercise intensity in diabetic autonomic neuropathy. *Diabetes Care*. 2003;26(4):986-90.

18. Cooney MT, Dudina A, De Bacquer D, *et al*. HDL cholesterol protects against cardiovascular disease in both genders, at all ages and at all levels of risk. *Atherosclerosis*. 2009;206(2):611-6.

19. De Wit S, Sabin CA, Weber R, *et al.* Incidence and risk factors for new-onset diabetes in HIV-infected patients the data collection on adverse events of anti-HIV drugs (D: A: D) study. *Diabetes Care*. 2008;31(6):1224-9.

20. Dolan SE, Frontera W, Librizzi J, *et al.* Effects of a supervised home-based aerobic and progressive resistance training regimen in women infected with human immunodeficiency virus: a randomized trial. *Arch Intern Med*. 2006;166(11):1225-31.

21. Donges CE, Duffield R. Effects of resistance or aerobic exercise training on total and regional body composition in sedentary overweight middle-aged adults. *Applied Physiology, Nutrition, and Metabolism*. 2012;37(3):499-509.

22. Farinatti PTV, Borges JP, Gomes RD, Lima D, Fleck SJ. Effects of a supervised exercise program on the physical fitness and immunological function of HIV-infected patients*. J Sports Med Phys Fitness.*2010;50(4):511-8.

23. Fillipas S, Cherry CL, Cicuttini F, Smirneos L, Holland AE. The effects of exercise training on metabolic and morphological outcomes for people living with HIV: a systematic review of randomised controlled trials. *HIV Clin Trials*. 2010;11(5):270-82.

24. Friis-Møller N, Weber R, Reiss P, *et al.* Cardiovascular disease risk factors in HIV patients-association with antiretroviral therapy. Results from the DAD study. *AIDS*. 2003;17(8):1179-1193.

25. Galantino, ML, Shepard K, Krafft L, *et al.* The effect of group aerobic exercise and t'ai chi on functional outcomes and quality of life for persons living with acquired immunodeficiency syndrome. *J Altern Complement Med.* 2005;11(6):1085-92.

26. Grinspoon S, Corcoran C, Parlman K, *et al.* Effects of testosterone and progressive resistance training in eugonadal men with AIDS wasting. A randomized, controlled trial. *Ann Intern Med.* 2000;133(5):348-55.

27. Grundy SM, Cleeman JI, Merz CN, *et al.* Implications of recent clinical trials for the National Cholesterol Education Program Adult Treatment Panel III guidelines. *Circulation*. 2004;110(2):227-39.

28. Grunfeld C. Insulin resistance in HIV infection: drugs, host responses, or restoration to health?. *Top Antivir Med.* 2008;16(2):89-93.

29. Hadigan C, Meigs JB, Wilson PW, *et al.* Prediction of coronary heart disease risk in HIV-infected patients with fat redistribution. *Clin Infect Dis*. 2003;36(7):909-16.

30. Haskell WL, Lee IM, Pate RR, *et al.* Physical activity and public health: updated recommendation for adults from the American College of Sports Medicine and the American Heart Association. *Med Sci Sports Exerc.* 2007;39(8):1423-34.

31. Heath KV, Montaner JSG, Bondy G, Singer J, O’Shaughnessy MV, Hog RS. Emerging drug toxicities of Highly Active Antiretroviral Therapy for Human Immunodeficiency Virus infection. *Curr Drug Targets*. 2003;4(1):13-22.

32. Heyward V, Wagner D. *Applied Body Composition Assessment. 2nd ed.* Illinois: Human Kinetics; 2004. 268 p.

33. Hoffmann C, Rockstroh JK, Kamps BS. *HIV Medicine*. 15th ed. Paris: Flying Publishers; 2007. 818 p.

34. Howe TE, Rochester L, Neil F, Skelton DA, Ballinger C. Exercise for improving balance in older people. *Cochrane Database Syst Rev.* 2012;(5):1-295

35. Jong E, Oudhoff LA, Epskamp C, *et al.* Predictors and treatment strategies of HIV-related fatigue in the combined antiretroviral therapy era. *AIDS*. 2010;24(10):1387-405.

36. Kamin DS, Grinspoon SK. Cardiovascular disease in HIV-positive patients. *Aids*. 2005;19(7):641-52.

37. Lindegaard B, Hansen T, Hvid T, *et al.* The effect of strength and endurance training on insulin sensitivity and fat distribution in human immunodeficiency virus-infected patients with lipodystrophy. *Clin Endocrinol Metab.* 2008;93(10):3860-9.

38. Lox CL, McAuley E, Tucker RS. Aerobic and resistance exercise training effects on body composition, muscular strength, and cardiovascular fitness in an HIV-1 population. *Int J Behav Med.* 1996;3(1):55-69.

39. Lox CL, McAuley E, Tucker RS. Physical training effects on acute exercise-induced feeling states in HIV-1-positive individuals. *J Health Psychol.* 1996;1(2):235-40.

40. Mayer KH, Hirsch HH, Kaufmann G, *et al.* Immune reconstitution in HIV-infected patients. *Clinical Infectious Diseases*. 2004;38(8):1159-66.

41. Miller TL, Somarriba G, Kinnamon DD, Weinberg GA, Friedman LB, Scott GB. The effect of a structured exercise program on nutrition and fitness outcomes in human immunodeficiency virus-infected children. *AIDS Res Hum Retroviruses.* 2010;26(3):313-9

42. Mueller MJ, Tuttle LJ, Lemaster JW, *et al.* Weight-bearing versus nonweight-bearing exercise for persons with diabetes and peripheral neuropathy: a randomized controlled trial. *Arch Phys Med Rehabil.* 2013;94(5):829-38

43. Mutimura E, Crowther NJ, Cade TW, Yarasheski KE, Stewart A. Exercise training reduces central adiposity and improves metabolic indices in HAART-treated HIV-positive subjects in Rwanda: a randomized controlled trial. *AIDS Res Hum Retroviruses.* 2008;24(1):15-23.

44. Nakagawa F, May M, Phillips A. Life expectancy living with HIV: recent estimates and future implications. *Current opinion in infectious diseases*. 2013;26(1): 17-25.

45. Newshan G, Bennett J, Holman S. Pain and other symptoms in ambulatory HIV patients in the age of highly active antiretroviral therapy*. J Assoc Nurses AIDS Care.* 2002;13(4):78-83.

46. Nixon S, O’brien K, Glazier RH, Tynan AM. Aerobic exercise interventions for adults living with HIV/AIDS. *Cochrane Database Syst Rev*. 2010;8(8):1-68

47. Pattman R, Snow M, Handy P, Nathan S, Elawad B. *Oxford Handbook of Genitourinary Medicine, HIV, and Aids.* 1st ed. Oxford: Oxford University Press; 2005. 580 p.

48. Phillips KD, Sowell RL, Rojas M,Tavakoli A. Physiological and psychological correlates of fatigue in HIV/AIDS. *Biol Res Nurs.* 2004;6(1):59-74.

49. Robinson FP, Quinn LT, Rimmer JH. Effects of high-intensity endurance and resistance exercise on HIV metabolic abnormalities: a pilot study. *Biol Res Nurs*. 2007;8(3):177-85.

50. Rusch M, Nixon S, Schilder A, Braitstein P, Chan K, Hogg RS. Impairments, activity limitations and participation restrictions: prevalence and associations among persons living with HIV/AIDS in British Columbia. *Health Qual Life Outcomes*. 2004;*2*(1):46-55.

51. Samaras K. Prevalence and pathogenesis of diabetes mellitus in HIV-1 infection treated with combined antiretroviral therapy. *J Acquir Immune Defic Syndr.* 2009;50(5):499-505.

52. Samaras K, Wand H, Law M, Emery S, Cooper D, Carr A. Prevalence of Metabolic Syndrome in HIV-Infected Patients Receiving Highly Active Antiretroviral Therapy Using International Diabetes Foundation and Adult Treatment Panel III Criteria Associations with insulin resistance, disturbed body fat compartmentalization, elevated C-reactive protein, and hypoadiponectinemia. *Diabetes Care*. 2007;30(1):113-19.

53. Seaberg EC, Munoz A, Lu M, *et al.* Association between highly active antiretroviral therapy and hypertension in a large cohort of men followed from 1984 to 2003. *AIDS.* 2005;19(9):953-960.

54. Smith BA, Neidig JL, Nickel JT, *et al.* Aerobic exercise: effects on parameters related to fatigue, dyspnea, weight and body composition in HIV-infected adults. *AIDS*. 2001;15(6):693-701.

55. Spence DW, Galantino ML, Mossberg KA, Zimmerman SO. Progressive resistance exercise: effect on muscle function and anthropometry of a select AIDS population. *Arch Phys Med Rehabil*. 1990;71(9):644-8.

56. Stringer WW, Berezovskaya M, O'Brien WA, Beck CK, Casaburi, R. The effect of exercise training on aerobic fitness, immune indices, and quality of life in HIV+ patients. *Med Sci Sports Exerc.* 1998;30(1):11-6.

57. Terry L, Sprinz E, Ribeiro JP. Moderate and high intensity exercise training in HIV-1 seropositive individuals: a randomized trial. *Int J Sports Med*. 1999;20(2):142-6.

58. [Terry L](http://europepmc.org/search/?page=1&query=AUTH:%22Terry+L%22), [Sprinz E](http://europepmc.org/search/?page=1&query=AUTH:%22Sprinz+E%22), [Stein R](http://europepmc.org/search/?page=1&query=AUTH:%22Stein+R%22), [Medeiros NB](http://europepmc.org/search/?page=1&query=AUTH:%22Medeiros+NB%22), [Oliveira J](http://europepmc.org/search/?page=1&query=AUTH:%22Oliveira+J%22), [Ribeiro JP](http://europepmc.org/search/?page=1&query=AUTH:%22Ribeiro+JP%22). Exercise training in HIV-1-infected individuals with dyslipidemia and lipodystrophy. *Med Sci Sports Exerc*. 2006;38(3): 411-17.

59. Thoni GJ, Fedou C, Brun JF. Reduction of fat accumulation and lipid disorders by individualized light aerobic training in human immunodeficiency virus infected patients with lipodystrophy and/or dyslipidemia. *Diabetes Metab J*. 2003:28(5);397-404.

60. Triant VA, Lee H, Hadigan C, Grinspoon SK. Increased acute myocardial infarction rates and cardiovascular risk factors among patients with human immunodeficiency virus disease. *J Clin Endocrinol Metab.* 2007;92(7):2506-12.

61. U.S. Center for Disease Control. *Diagnoses of HIV Infection and AIDS in the United States and Dependent Areas.* Atlanta, G.A: U.S. Department of Health and Human Services, Center for Disease Control and Prevention; 2011. 84 p. Available from: U.S. GPO, Washington.

62. U.S. Center for Disease Control. Effects of Antiretroviral Therapy on Risk of Sexual Transmission of HIV Infection and Superinfection*.* [Internet]. Atlanta (GA): U.S. Department of Health and Human Services, Center for Disease Control and Prevention; [cited 2013 Sep 4]. Available from: <http://www.cdc.gov/hiv/prevention/research/art/>

63. U.S. Center for Disease Control. HIV/AIDS and Viral Hepatitis*.* [Internet]. Atlanta (GA): U.S. Department of Health and Human Services, Center for Disease Control and Prevention; [cited 2013 Sep 4]. Available from: <http://www.cdc.gov/hepatitis/Populations/HIV.htm>

64. U.S. Center for Disease Control. *Revised Surveillance Case Definitions for HIV Infection Among Adults, Adolescents, and Children Aged <18 Months and for HIV Infection and AIDS Among Children Aged 18 Months to <13 Years.* Atlanta, G.A: U.S. Department of Health and Human Services, Center for Disease Control and Prevention; 2008. 8 p. Available from: U.S. GPO, Washington.

65. U.S. Center for Disease Control. Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Postexposure Prophylaxis*.* [Internet]. Atlanta (GA): U.S. Department of Health and Human Services, Center for Disease Control and Prevention; [cited 2013 Sep 4]. Available from: <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5011a1.htm>

66. U.S. Center for Disease Control. Workplace Safety & Health Topics*.* [Internet]. Atlanta (GA): U.S. Department of Health and Human Services, Center for Disease Control and Prevention; [cited 2012 Nov 21]. Available from: <http://www.cdc.gov/niosh/topics/bbp/universal.html>

67. U.S. Department of Health and Human Services. AIDS.gov. Fluids of Transmission [Internet]. Washington (DC): U.S. Department of Health and Human Services; [Cited 2013, Sep 4]. Available from: <http://aids.gov/hiv-aids-basics/prevention/reduce-your-risk/fluids-of-transmission>

68. U.S. Department of Health and Human Services. AIDS.gov. Opportunistic Infections [Internet]. Washington (DC): U.S. Department of Health and Human Services; [Cited 2013, Sep 4]. Available from: <http://aids.gov/hiv-aids-basics/staying-healthy-with-hiv-aids/potential-related-health-problems/opportunistic-infections/>

69. Van Amsterdam J, Opperhuizen A, Hartgens F. Adverse health effects of anabolic–androgenic steroids. *Regulatory Toxicology and Pharmacology*. 2010;57(1):117-23.

70. Walsh NP, Gleeson M, Shephard RJ, *et al.* Position statement part one: immune function and exercise. *Exerc Immunol Rev.* 2011;17:6-63

71. Wohl DA, McComsey G, Tebas P, *et al.* Current concepts in the diagnosis and management of metabolic complications of HIV infection and its therapy. *Clin Infect Dis.* 2006;43(5): 645-53.

72. World Health Organization. Facts on HIV/AIDS [Internet]. Geneva, Switzerland: World Health Organization; [cited 2012 Nov 21]. Available from: <http://www.who.int/features/factfiles/hiv/facts/en/index2.html>

73. World Health Organization. HIV/AIDS Data and statistics [Internet]. Geneva, Switzerland: World Health Organization; [cited 2012 Nov 21]. Available from: <http://www.who.int/hiv/data/en/>

74. Worm SW, Friis-Møller N, Bruyand M, *et al.* High prevalence of the metabolic syndrome in HIV-infected patients: impact of different definitions of the metabolic syndrome. *AIDS*. 2010;24(3):427-35.

75. Yarasheski KE, Tebas P, Stanerson B, *et al.* Resistance exercise training reduces hypertriglyceridemia in HIV-infected men treated with antiviral therapy. *J Appl Physiol*. 2001;90(1):133-8.