

## Olympian Impact Factors: Top Journals in Exercise and Sports Science and Medicine for 2008

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This year's gold, silver, and bronze for journals specializing in sport and exercise, as judged by their impact factor (citations in 2007 per article published in 2005 and 2006), go to Sports Medicine (3.6), American Journal of Sports Medicine (3.4) and Exercise and Sport Sciences Reviews (3.0). Other finalists were Medicine and Science in Sports and Exercise (2.9), British Journal of Sports Medicine (2.5), Scandinavian Journal of Medicine & Science in Sports (2.3), Clinics in Sports Medicine (1.7, also the prize for the most improved), Journal of Sport and Exercise Psychology (1.7), Clinical Journal of Sport Medicine (1.6), International Journal of Sport Nutrition & Exercise Metabolism (1.5), International Journal of Sports Medicine (1.5), Journal of Orthopaedic & Sports Physical Therapy (1.5), Exercise and Immunology Reviews (1.4), Journal of Athletic Training (1.4), Journal of Sports Sciences (1.4), Journal of Strength and Conditioning Research (1.4), Human Movement Science (1.3), Journal of Aging and Physical Activity (1.3), Journal of Applied Sport Psychology (1.3), Psychology of Sport and Exercise (1.2), Journal of Science and Medicine in Sport (1.1), and Quest (1.0). Other journals had impact factors <1.0. International Sportmed Journal (0.3) earned the prize for novice competitor. Other citation statistics (pagerank, cited half life, immediacy index) are of little use for ranking journals in our field. KEYWORDS: academic, citation, pagerank, publication, research.

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Partly because researchers find journal impact factors interesting, partly because no other trustworthy objective measure of journal importance currently exists, and partly because I am always short of copy for Sportscience, I am pleased to present once again the annual list of impact factors for journals in our disciplines. The impact factor represents the number of citations that a journal's average recent (2005-2006) article received in all 2007 journal articles. The factors are compiled by Thomson Scientific and published as Journal Citation Reports each year around June-July. Access to the reports is possible only via an institutional subscription. Consult [last year's summary](#) and the links there to earlier summaries for more information on the impact factor.

Table 1 shows the table of impact factors, with journals sorted alphabetically and movements in the factor color coded. To comply with Thomson Scientific's policy of acceptable use, I am allowed to show only this year's factors,

and I have had to show some of the lower impact factors as inequalities. The ranking of the journals specializing in sport or exercise is shown in the Abstract of this article, whereas the table includes journals of a more generic nature that accept articles on some aspect of exercise or sport science or medicine. Some of these journals, for example those devoted to applied physiology, have higher impact factors that reflect the greater level of activity in those disciplines. For the same reason, journals with a specific focus, such as sport history, have low impact factors that do not necessarily reflect article quality.

Dissatisfaction with this and other aspects of the impact factor has led to a proposal for ranking journals based on the pagerank algorithm Google uses to rank hits. Pagerank is essentially a measure of how many citations a journal receives from journals that receive higher rates of citation. As such, it is described as a measure of prestige. (For more, see [an article](#) in Wikiped-

dia.) Alas, the measure does not seem to be adjusted in any way for journal size, so journals with more articles receive more citations: prestige, it seems, is all about being big. The Journal of Biological Chemistry is huge (37,920 pages last year), which probably explains why only Nature beat it to the top of the pagerank list. Nature is much smaller (~6500 pages last year) but gets far more citations per article (impact factor 29 vs JBC's 5.6). The pagerank divided by the annual number of articles would be a more sensible measure of prestige.

This year I made the effort to understand other citation statistics featured in the Journal

Citation Reports. The *cited half-life* is described as "the median age of the articles cited in the JCR year... A higher or lower cited half-life does not imply any particular value for a journal." I skimmed values of this statistic for the sport science journals, and I have to agree there is no obvious useful information in this statistic for researchers. The *immediacy index* refers to "the average number of times an article is cited in the year it is published... For comparing journals specializing in cutting-edge research, the immediacy index can provide a useful perspective." Perhaps, but I would argue not for journals in exercise and sport science.

Table 1: Impact factors (citations per paper) for sport and exercise science journals based on papers published in 2005 and 2006 that were cited in 2007. "<1.0" implies a value between 0.1 and 1.0. A journal without an impact factor is not in Thomson Scientific's science or social sciences databases, either because the journal is too new or the factor is too low. Colors indicate changes in impact factor since last year.

	↑ ≥70%	↑ 30-69%	↑ 10-29%	↑↓ 0-9%	↓ 10-60%
<0.1	ACSM's Health and Fitness Journal				
2.6	Acta Physiologica Scandinavica				
<1.0	Adapted Physical Activity Quarterly				
	American Journal of Medicine and Sports				
1.6	American Journal of Physical Medicine & Rehabilitation				
4.1	American Journal of Physiology - Endo & Metab				
4.0	American Journal of Physiology - Heart & Circ				
3.4	American Journal of Sports Medicine				
<1.0	Applied Ergonomics				
1.0	Applied Physiology Nutrition & Metabolism (was Canadian Journal of Applied Physiology)				
<1.0	Applied Psychological Measurement				
1.3	Applied Psychology-International Review				
1.8	Archives of Physical Medicine and Rehabilitation				
<1.0	Athletic Therapy Today				
1.9	Australian Journal of Physiotherapy				
0.8	Aviation Space and Environmental Medicine				
1.0	Behavior Research Methods, Instruments, & Computers				
<0.1	Biology of Sport				
2.5	British Journal of Sports Medicine				
1.3	Canadian Journal of Applied Physiology (now Applied Physiology Nutrition & Metabolism)				
1.6	Clinical Biomechanics				
1.6	Clinical Journal of Sport Medicine				
2.9	Clinical Nutrition				
1.7	Clinics in Sports Medicine				
	Current Sports Medicine Reports				
<1.0	Deutsche Zeitschrift fur Sportmedizin				
	Electromyography and Motor Control				
1.5	Ergonomics				
1.8	European Journal of Applied Physiology				
2.3	European Journal of Clinical Nutrition				
	European Journal of Sport Science				
	European Review of Aging and Physical Activity				
	European Sports History Review				
1.4	Exercise and Immunology Reviews				
3.0	Exercise and Sport Sciences Reviews				
2.3	Gait and Posture				
1.8	High Altitude Medicine and Biology				
1.3	Human Movement Science				
5.2	International Journal of Epidemiology				
	International Journal of History of Sport				
	International Journal of Performance Analysis in Sport				
1.5	International J of Sport Nutrition & Exercise Metabolism				
0.5	International Journal of Sport Psychology				
1.5	International Journal of Sports Medicine				
	International J of Sports Physiology & Performance				
	International Review for the Sociology of Sport				
0.3	International Sportmed Journal				
	International Sports Journal				
<1.0	Isokinetics and Exercise Science				
<0.1	Japanese Journal of Physical Fitness and Sport				
1.3	Journal of Aging and Physical Activity				
	Journal of Applied Behavioral Science				
1.1	Journal of Applied Biomechanics				
3.6	Journal of Applied Physiology				

3.0	Journal of Applied Psychology	<1.0	Leisure Sciences
1.3	Journal of Applied Sport Psychology		Leisure Studies
1.4	Journal of Athletic Training		Measurement in Physical Education & Exercise Science
2.9	Journal of Biomechanics	<0.1	Medicina dello Sport
	Journal of Bodywork and Movement Therapies	2.9	Medicine and Science in Sports and Exercise
1.2	Journal of Clinical Psychology		Medicine and Sport Science
	Journal of Comparative Physical Education & Sport	1.3	Motor Control
1.3	Journal of Electromyography and Kinesiology	<1.0	Pediatric Exercise Science
3.0	Journal of Epidemiology and Community Health		Pediatric Physical Therapy
	Journal of Exercise Physiology Online	<1.0	Perceptual and Motor Skills
<0.1	Journal of Human Movement Studies		Physical Educator
	Journal of Human Performance in Extreme Environments	2.2	Physical Therapy
<1.0	Journal of Leisure Research	<1.0	Physical Therapy in Sport
1.3	Journal of Motor Behaviour	<1.0	Physician and Sportsmedicine
3.8	Journal of Nutrition	???	Physikalische Medizin Rehabilitationsmedizin Kuror.
2.1	Journal of Occupational & Environmental Medicine	1.2	Psychology of Sport and Exercise
1.5	Journal of Orthopaedic & Sports Physical Therapy	1.0	Quest
<1.0	Journal of the Philosophy of Sport		Research in Sports Med (was Sports Med Train Rehab)
	Journal of Physical Education, Recreation, & Dance	0.9	Research Quarterly for Exercise and Sport
4.6	Journal of Physiology	2.3	Scandinavian Journal of Medicine & Science in Sports
1.1	Journal of Science and Medicine in Sport	<1.0	Science and Sports
1.0	Journal of Social and Clinical Psychology	<1.0	Sociology of Sport Journal
1.7	Journal of Sport and Exercise Psychology		Sport History Review
<1.0	Journal of Sport and Social Issues	<1.0	Sport, Education, and Society
	Journal of Sport Behavior	<1.0	(The) Sport Psychologist
	Journal of Sport History		Sports Biomechanics
<1.0	Journal of Sport Management		Sports Exercise and Injury
<1.0	Journal of Sport Rehabilitation	3.6	Sports Medicine
	Journal of Sports Chiropractic and Rehabilitation	<1.0	Sports Medicine and Arthroscopy Review
<1.0	Journal of Sports Medicine and Physical Fitness		Sports Medicine Standards & Malpractice Reporter
<1.0	Journal of Sports Science and Medicine	<1.0	Sportverletzung-Sportschaden
1.4	Journal of Sports Sciences		Strength and Conditioning
	Journal of Sports Traumatology	<1.0	Strength and Conditioning Journal
1.4	Journal of Strength and Conditioning Research		Women in Sport & Physical Activity Journal
	Journal of Swimming Research		
<1.0	Journal of Teaching in Physical Education		

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