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The Sport and Exercise Nutrition Register

 ***Competences in Sport and Nutrition***

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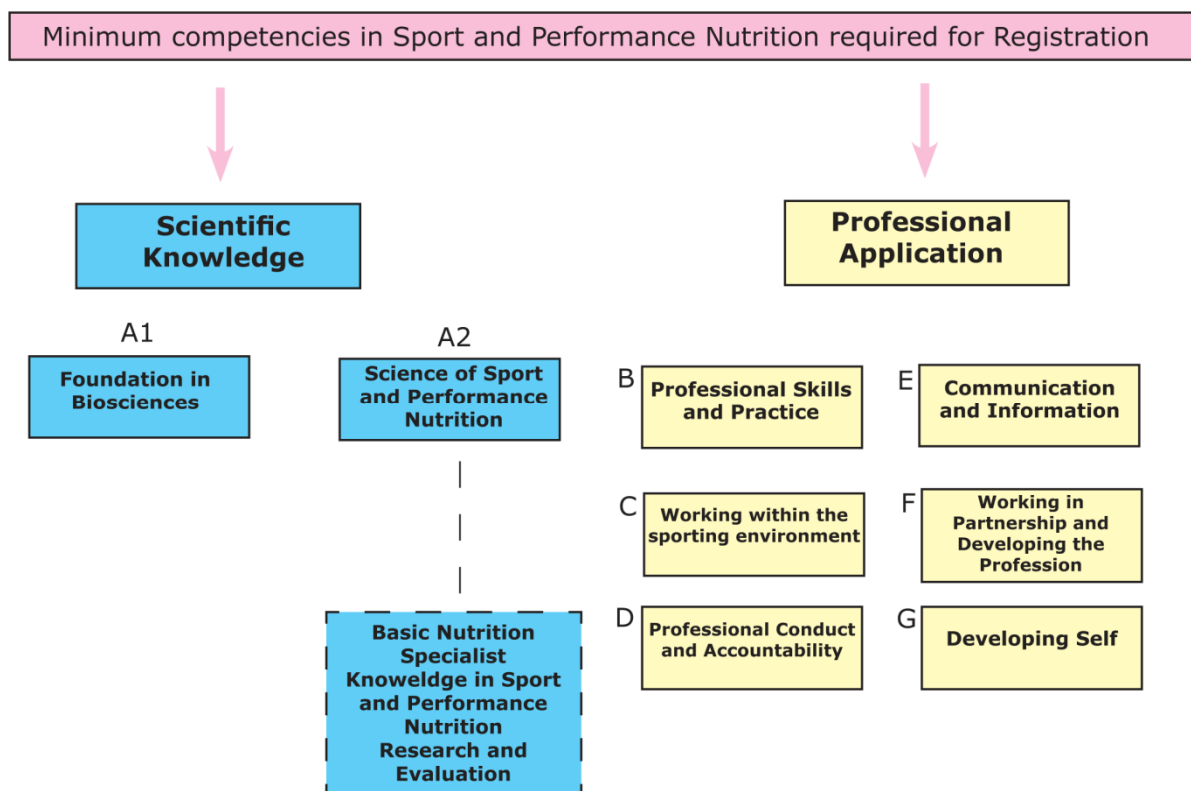
This document describes in detail the collection of competences expected of the SENr registrant in Sports and Performance Nutrition.

It covers underpinning Scientific Knowledge and the Professional Application of knowledge, skills and attitudes in the sport and performance environment.

The competencies outlined in this document are re-presented in a separate document ‘Competency Self Assessment for SENr Sport and Performance Nutrition’ in a framework designed to allow applicant self assessment prior to application submission.

An overview of the SENr Competency framework is provided in Figure 1.

Figure 1. SENr Competency Framework for Sport and Performance Nutrition



A. Scientific Knowledge

Individuals competent in Sport and Performance Nutrition should be proficient in nutrition, underpinned by the biosciences.

The Scientific Knowledge base has two components:

1. Foundation in Biosciences.
2. Science of Sport and Performance Nutrition.

A1. Foundation in Biosciences

Registration requires competence in specific aspects of the biosciences.

In brief, Sport and Performance Nutritionists should have a thorough understanding, at an intermediate level ¹, for example achieved through full time undergraduate study for two years or equivalent, of:

1. The whole human body and its functions, especially digestion, absorption, excretion, respiration, fluid and electrolyte balance, cardio-vascular system, neuro-endocrine system, movement and the musculo-skeletal system, immunity and thermoregulation.
2. Mechanisms for the integration of metabolism, at molecular, cellular, and whole body levels.

A2. Science of Sport and Performance Nutrition

Sound grounding in the science of nutrition is essential for rigorous, evidence-based practice. The fundamentals of nutrition science should be presented in a module of at least 10 European Credit Transfer and Accumulation System (ECTS) credits at an intermediate level. This is equivalent to the second year or level 2 in a full time honours degree course or HND/Foundation degree level.

In the interest of clarity, guidance follows on the detailed knowledge and understanding of basic nutrition that underpins the specialist competences in sport and exercise nutrition. In each case, unless otherwise stated, competency means sufficient knowledge and understanding for application in safe, sound, effective and ethical practice.

Basic Nutrition

Individuals who are eligible for registration are expected to:

1. Know, understand and have the ability to critically evaluate the principles and methods of measurement and estimation of energy balance, energy expenditure and components of fitness, body mass and body composition.

¹ This equates to the level reached after 2 years full-time study in higher education and attaining ‘...a sound understanding of the principles of the field of study’, ‘an ability to apply those principles widely’, ‘the qualities necessary for employment in situations requiring exercise of personal responsibility and decision making’. QAA (2001) *The framework for higher education qualifications in England, Wales and Northern Ireland*.



2. Know and understand the theory and methods of investigating the dietary and nutrient patterns of the general population and subgroups of the population.
3. Understand the scientific basis of the safety and health-promoting properties of nutrients, based on knowledge of the metabolic effects of anti-nutrients, toxicants, additives, pharmacologically active agents (drugs); nutrient-nutrient interactions, 'nutri-ceuticals', functional foods, and any other metabolically active constituents of foods and the diet.
4. Know, understand and have the ability to evaluate the scientific basis for the measurement and estimation of nutritional requirements; know and understand the limitations and usefulness of dietary reference values and recommended dietary allowances for the general population and safe upper levels of individual nutrients.
5. Know how to select and analyse relevant qualitative and quantitative dietary and nutritional data and, using (an) appropriate database, interpret these data using appropriate reference values to inform decisions.
6. Know and understand the strengths and limitations of the general principles and standard methods of assessment of nutritional status including anthropometric, dietary, biochemical, physiological, and functional methods.
7. Be aware of public health and nutrition in the UK (within a European or wider context).
8. Know and understand the aetiology of nutritional or nutrition-related problems that are relevant to sports performance (e.g. Fe).
9. Know and understand the special needs of vulnerable groups:
 - at stages in the lifecycle (childhood, pregnancy, old age);
 - with conditions such as obesity and eating disorders;
 - socio-economic disadvantaged or socially excluded;
 - the disabled;
 - vegans.
10. Know and understand how to take ethnicity or culture into account in formulating practical advice in terms of foods, meals and menus.
11. Know and understand the principles of food preparation, handling, management and safety:
 - Principles of catering management;
 - Practical and financial constraints on menu planning;
 - Methods of food service;
 - Food and nutritional labelling regulations and legislation;
 - Types of food additives, methods of food preservation and how these alter the nutrient content of food.

Specialist Knowledge in Sport & Performance Nutrition

Registered Sport and Performance Nutritionists should have additional competences, equivalent to the final year of an honours degree, in two respects:

- Additional intellectual knowledge and understanding of information, concepts, and methods that are integrated with basic knowledge of nutrition and sport and exercise sciences;
- Additional professional abilities needed to apply knowledge to athletes in a sporting environment.

Individuals who are eligible for registration are expected to:

1. Know and understand the theoretical basis for, and methods of investigation of, the metabolic effects, the efficacy, health, safety, and legal aspects of ergogenic aids of all kinds including pharmacologically active agents, sports foods, sports drinks, and supplements.
2. Know and understand the nature of the different sports, that is:
 - The physiological demands of sport participation and training programmes, training practices, physical demands and rules of sports;
 - Lifestyles of athletes, their families, coaches and other people who work with athletes, and the organisational cultures of sports;
 - The scientific basis of training for and competing in sport;
 - The nutritional implications of the physiological and biochemical demands of training for and competing in sport;
 - Application of nutrition to the physical and biochemical states in various sports;
 - The psychological implications of the physical and nutritional demands of training for and competing in sport.
3. Appreciate the ambitions, values, beliefs, motivations and psychosocial concerns of athletes (e.g. to 'make weight', to change body composition, to control body mass).

Nutrition, Health and Sports

Individuals who are eligible for registration are expected to:

1. Know and understand the effects of disease processes upon:
 - Diet and nutrition;
 - Capacity for activity in the forms of exercise or sports;
 - Sports performance.
2. Know and understand the factors that affect athletes' nutritional needs and practices.
3. Know the range of foods commonly available to athletes on a practical level and be able to advise on suitability of specific products.
4. Know and understand how to design advice that will maintain and/or promote the safety and health of individuals or groups of clients:
 - Elicit relevant information for the formulation of appropriate advice;
 - Select, assess, and analyse information in order to formulate advice about diets, nutrient intakes, and nutritional status of athletes;
 - Design advice that will optimise performance and give consideration to the health of the athlete.

Research and Evaluation

Individuals who are eligible for registration are expected to know and understand how to conduct, and / or critically evaluate research, in order to provide up-to-date evidence-based scientific support, advice or other services:



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1. Cognisant of the range of research methods used that are valid and appropriate to the needs and context in sport nutrition:
 - Principles and methods of research design;
 - Principles of measurement (including validity, repeatability of measurements);
 - Selection, use and interpretation of design issues (sampling, study size, power);
 - Selection, use and interpretation of appropriate analytical statistical techniques;
 - Methods for monitoring and evaluating the effectiveness of an intervention.
2. Continually evaluate relevant research to ensure own practice is evidence based:
 - Critical appraisal;
 - Application to practice.

B – G Professional Application

It is the application of the knowledge, skills and attitudes of Sport and Exercise Nutrition professionals that is of primary importance to the Register.

Hence the SENr Sports and Performance Nutrition pathway seeks to identify individuals who can effectively work within a performance environment, capable of providing a high quality service to athletes (and the coaches, family and carers, team staff, and organisations that support them) across a wide range of sports and performance endeavours. The competences outlined focus on professional application within this performance environment.

B. Professional Skills and Practice

The practical and effective application of knowledge and professional skills is the primary objective of the practitioner. As such achieving competency in professional practice within the sporting environment (see also C. Working within the sporting environment) is considered most important in demonstrating suitability for registration in Sports and Exercise Nutrition.

1. Determine the status of dietary practices and nutritional requirements from history, interview and investigation.
2. Assess nutritional needs holistically using appropriate methods that are based on research evidence, best practice standards, guidelines and protocols.
3. Interpret nutritional assessment information in relation to goals and preferences and the requirements of the specific sport or exercise regimen.
4. Ability to translate nutrients and energy requirements into foods and menus that are appropriate to the demands of exercise or sport.
5. Plan nutritional interventions and programmes in partnership taking account of goals, preferences, religious and cultural practices or proscriptions.
6. Record the agreed plan in a format that is clear and understandable.
7. Ensure that the nutritional plan is understood.
8. Monitor and evaluate the effectiveness of interventions and programmes and refine these to meet changing needs and goals.

9. Know the limits of own practice and where and when to seek advice and/or refer to another professional.
10. Prioritise personal workload and manage time and resources efficiently.
11. Maintain a safe working environment that conforms to health and safety legislation and organisational policies.
12. Audit practice against best practice standards, guidelines and protocols.
13. Continuously monitor performance and take effective action.

C. Working within the Sporting Environment

The registrant is expected to have a sound working knowledge and a broad experience base within the sporting environment. It is this knowledge, experience and professional application within the sporting environment that differentiates the Sport and Exercise Nutritionist from other practitioners working in nutrition.

Knowledge, understanding and practical experience in a range of circumstances are expected in the following areas:

1. Understands the role of the sports dietitian / nutritionist and works as an effective team member:
 - Personal responsibilities;
 - Working within a multi-disciplinary team environment.
2. Structures support around individual and team requirements:
 - In line with training plan and competition schedule;
 - Work effectively with individual athletes and a team of athletes.
3. Familiar with anti-doping practices, procedures and legislation (e.g. WADA code):
 - Doping classes and methods;
 - Permitted use of banned drugs;
 - Doping control procedures;
 - Side effects of performance enhancing substances / methods;
 - Sport specific patterns of abuse;
 - Professional conduct in relation to advice on supplementation.
4. Experience with travelling athletes / teams:
 - Health issues;
 - Combating jet lag;
 - Meal plans and strategies for travelling abroad/across time zones;
 - Dealing with restrictions, geographical variations, adverse weather, language barriers;
 - Managing expectations, habits and preferences.
5. Understand athlete ambitions, values, beliefs, motivations, psychological concerns and performance pressures:
 - Coping with stress, injury, rehabilitation, failure, de-selection, retirement;
 - Performance scrutiny including peers, public and media;
 - Importance of role models and positive norms;
 - Impact of religious, cultural and ethical practices.
6. Appreciate the lifestyles of athletes, their families, coaches, fitness and professional staff who work with athletes.
7. Understanding of sporting culture within a team, discipline, sport or nation:
 - Group psychology: team, staff, programme.
8. Provide tailored, appropriate (and in some cases leading edge) dietary advice and support to athletes from a wide variety of sports and circumstances:



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- Types of sports: speed, power, strength, strength endurance, endurance, ultra endurance, multi-events, mixed capacity sports, target sports, combative sports;
 - Weight: underweight overweight, making weight, body shaping, weight bearing, non-weight bearing;
 - Restricted diet: culture, religion, geography, competition structure;
 - Environment: hot, cold, high altitude, pollution;
 - The travelling athlete;
 - The disabled / ill athlete;
 - The team environment: camps, competition, training;
 - Peaking, tapering, heavy training, light training, recovery;
 - Injury and rehabilitation;
 - Supplements and alternatives.
9. Familiar with a wide variety of sports in terms of rules and regulations, physiological requirements and risk profiles, training and competition practices.
 10. Aware of the special needs of disabled athletes:
 - Disability classification and relevant competition rules and regulations;
 - Different dietary and energy requirements;
 - Practical issues related to impaired function.
 11. Provide advice to team management in a wide variety of sports on dietary issues.
 12. Monitor team environment in terms of food hygiene, including eating and cooking facilities.
 13. Maintain adequate personal and team records.
 14. Evaluate requirements and instigate dietary practices for a sporting event (e.g. camp, competition, tour):
 - Liaise with caterers at training centres and hotels to ensure appropriate foods and drinks are provided at all appropriate times.
 15. Adhere to principles of athlete confidentiality and medico legal requirements.
 16. Understand and adhere to child protection legislation:
 - Sport and professional bodies' interpretation and policies;
 - Home Country variations in legislation and procedures.
 17. Familiar with the relevant policies and procedures of governing bodies, institutes of sport, sport councils and Olympic and Paralympic Associations.

D. Professional Conduct and Accountability

Athletes, coaches, sports scientists, team members and other health professionals, the public and peers will have similar expectations of a Registered Sport and Exercise Nutrition Professional as they have of Registered Health Care Professionals². Defining minimum standards in these areas indicates adequate preparation for beginning safe, ethical practice in a profession.

Recognising the scope and limits of one's own competence is an essential aspect of the professionalism that is expected of a Registered Sport and Exercise Nutritionist who works within the SENr Code of Professional Conduct³.

The registrant is expected to demonstrate ability to show professional accountability, in respect of:

1. Practise within the framework set out in the SENr Code of Professional Conduct.

² The Health Professions Council's 'Standards of Conduct, Performance and Ethics' (2008) and 'Standards of Proficiency' (2007).

³ Sports and Exercise Nutrition Register Code of Professional Conduct (2010)



2. Understand the legal and ethical responsibilities of professional practice⁴.
3. Exercise a duty of care to athletes and clients.
4. Ensure working practices are safe and that the health and safety of clients and colleagues in the workplace⁵ is supported.
5. Understand professional role and its scope and limits of practice:
 - Requirements of professional regulatory bodies;
 - Limit or cease their practice if their performance or judgement is affected by their health;
 - Make ethically sound decisions that are consistent with relevant legislation, organisational policies and current research evidence;
 - Act within the limits of your knowledge, skills and experience and, if necessary, refer on to another professional.
6. Acknowledge equality, diversity and the rights of the individual.
7. Obtain informed consent before conducting a procedure or providing a service.
8. Adhere to the principles and practice of client confidentiality⁶.
9. Maintain appropriately detailed records of client care, prescribed diets and advice issued such that it can support and justify the rationale for one's actions should it be required in a court of law.
10. Exercise personal initiative and sound professional judgement in the resolution of problems.
11. Understand the inappropriateness of exploiting relationships with clients for personal gain or gratification.
12. Understand the inappropriateness of professionals personally profiting from promoting and selling supplements and proprietary products in the sporting world, an action which would lead to removal from the register.

E. Communication and Information

1. Proficient communication (including speaking, listening and writing) skills to elicit, interpret, integrate, assess and apply relevant information (psycho-social, economic and scientific) in order to individualise safe and sound advice:
 - Communicate in English to the standards equivalent to level 7 of the International English Language Testing System [HPC standard of proficiency].
2. Proficient in the use of information technology (IT) for communication, as sources of information, for presentation of information and for record keeping:
 - IT includes software for word-processing, presentation of information, spreadsheets, databases, e-mail, and the internet.
3. Present information clearly and succinctly in oral and written formats tailored to the message and audience:
 - Modify to address potential barriers such as age, literacy, physical and learning disability;
 - Communicate scientific terms and concepts in lay language.
4. Collate, analyse and interpret published information on behalf of the client.
5. Select and prepare appropriate teaching and information materials for diverse audiences.

⁴ Including a requirement for appropriate Professional Indemnity Insurance; legal obligations under Consumer and other relevant legislation.

⁵ Health and Safety at Work Acts or equivalent.

⁶ Data Protection Act or equivalent.



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6. Able to negotiate with clients in order to assess, review and evaluate efficacy of, and satisfaction with, service quality.
7. Apply appropriate theories of behaviour, behaviour change, counselling and communication, in order to initiate and sustain changes in attitudes and dietary behaviour.
8. Gather relevant information from a wide range of sources including electronic data:
 - Use statistical and research skills to gather and interpret evidence.
9. Develop resources to support service interventions and client education.
10. Effectively communicate the interpretation of clinical data and proposed interventions:
 - Food intake analysis data and dietary plans;
 - Physiological data, including blood and body composition;
 - Impact on performance.
11. Keep accurate, legible and up-to-date records:
 - Recognise the need to handle these records and all other clinical information in accordance with applicable legislation, protocols, and guidelines;
 - Understand the need to use only accepted terminology and abbreviations in client records;
 - Understand and work within the Data Protection Act.

F. Working in Partnership and Developing the Profession

1. Work effectively as part of a multidisciplinary team:
 - Work in partnership to plan, implement and review interventions and programmes.
2. Recognise own place and contribution within whole sports care profile:
 - Lead, support, refer and defer as appropriate.
3. Understand and respond appropriately to the prevailing logistical and financial frameworks and existing team dynamics to ensure effective practitioner contribution.
4. Build and sustain professional relationships as both an independent practitioner and collaboratively as a member of a team or within a professional network.
5. Appreciate the process and importance of contribution to the formulation of standards, guidelines, strategy and policy on behalf of clubs, groups, sports organisations, governing bodies, regulatory bodies, and others.
6. Appreciate the process and importance of contribution to the development of the knowledge and practice of others using a variety of teaching and learning methods.
7. Promote the profession of Sport and Performance Nutrition in an informative, engaging and considered manner.

G. Developing Self

Self-critical review of one's own practice is necessary in order to identify areas for self-development, to achieve high standards in, and to enhance the quality of, service provided. Reflection on practice and continuous professional development enable new knowledge and approaches in Sport and Performance Nutrition to be incorporated into practice.

1. Proactive in, and take responsibility for, developing and improving own competence:
 - Career long continuing professional development;
 - Maintain up to date knowledge in the scientific basis of sports and exercise nutrition;
 - Engage in formal events such as scientific conferences, case conferences, workshops, journal clubs (etc).

2. Continually reflect on and evaluate own practice:
 - Maintain effective audit trails;
 - Implement quality control, quality assurance and reflective practice procedures;
 - Identify areas for self-development.
3. Maintain a personal development portfolio which identifies learning and development needs, plans, actions and outcomes.
4. Change practice as needed to take account of new research and developments in the field.
5. Review and evaluate interventions and programmes and improve them in the interests of athletes (and other clients).
6. Establish and maintain appropriate professional relationships and networks with health and other professionals who can support, advise and mentor.





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