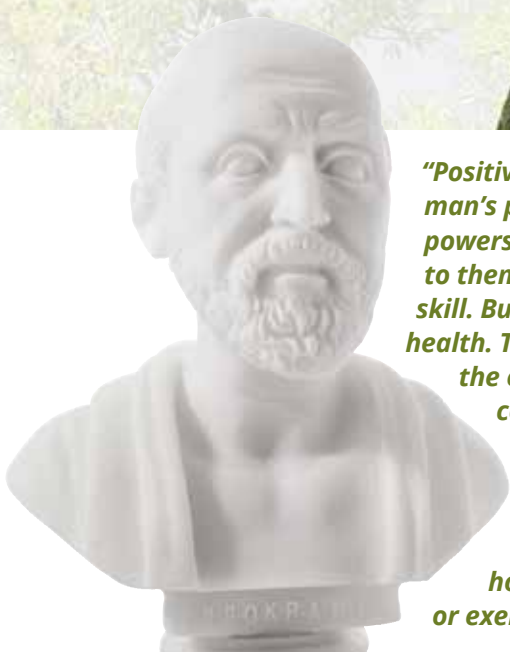


# The nature of our role in an athlete's ecosystem

The ethos of this magazine is to bring functional medicine and functional nutrition practices into the sporting arena.

**Paul Ehren** expands this thinking further with his incredibly insightful theory of an athlete's ecosystem.



***“Positive health requires a knowledge of man’s primary constitution and of the powers of various foods, both those natural to them and those resulting from human skill. But eating alone is not enough for health. There must also be exercise, of which the effects must likewise be known. The combination of these two things makes regimen, when proper attention is given to the season of the year, the changes of the wind, the age of the individual, and the situation of his home. If there is any deficiency in food or exercise, the body will fall sick.”***

**HIPPOCRATES**

**F**or a couple of reasons, this will be an unusual article for *FSN*, inasmuch as it doesn't principally deal with hard science and research, but more the art and philosophy of functional sports nutrition. It also asks questions and explores what, as individual practitioners, we are actually trying to achieve with our clients.

Anyone who has either read any of my published work, or heard me lecture, will realise that I often believe that; “to move forward, we sometimes need to look over our shoulders.” Never has this proved more true than by looking at some of the work attributed to the ancient Greeks. Hippocrates, often referred to as the ‘Father of modern medicine’, as seen in the left hand column, is credited with what I consider



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**“Would you be the one to prescribe the ‘magic bullet’ in the knowledge that your athlete (and you) may be able to bask in the glory of competition success, but the inevitable consequences (maybe long after your involvement has come to a close) are compromised health??”**

training, their current and historical health.

- The ‘ecosystem’ which they inhabit is everything that can have an impact, both positive and negative, on their health and success within their chosen sporting endeavour. This could be incredibly wide ranging; from finances, relationships, home life, peer pressure, the group dynamic if a team sport is involved, the involvement of other practitioners or coaches, motivational triggers, physical and mental genetics\*, employment or education restrictions etc. As your client becomes more successful and higher profile in their sport, this ecosystem will expand further.

As practitioners, this gives us a huge amount to take into consideration; some elements will be controllable and some will not, but all of them will have a potential impact on future success. To take just two examples from the list:

- Management of available finances will dictate quality of diet and supplementation, access to functional/medical testing, access to transportation, training facility fees, the need to seek part- or full-time employment, accommodation and expectations of lifestyle. A personal example of this is a Commonwealth Games Gold Medallist Judo client of mine. Because judo is a non-funded minority sport, the athlete was forced to live for nearly 10 years in the dormitory block at Camberley Judo Club in order to continue as a full-time player. His mentality was such that he thrived in these challenging conditions, but those less strong willed would have chosen a ‘normal’ life – a flat, job, salary, regular partner, full social life – with the sport merely being a recreational hobby.
- Relationships will make or break many sporting careers, whether this is the relationship with parents/family, a spouse, friends, teammates, or even interactions as diverse as social media. The level of support and understanding, or conversely negativity and resistance, can and will prove a major factor in long term success, or even participation in a chosen sport.

### **Expanding our skill sets and support systems**

These ecosystem elements cause a potential dilemma for the practitioner. Do you wish to immerse yourself in some or all of these areas and if so to what extent? My take on this, looking at my own career, is that you start off dealing with the ‘nuts and bolts’ of a client’s requirements, and as you increase in age and experience, both professional and life, you become more comfortable offering some guidance on matters that fall outside the pure health, nutrition and training fields.

This is also where surrounding yourself with a really good support system is so important. We simply can’t be experts, or even comfortable dealing with every aspect that may crop up, and we need to be responsible enough to delegate certain issues to others better placed to deal with

to be the greatest 100 words ever spoken on functional medicine/nutrition/strength and conditioning.

Breaking down his statement; we have not only the need to understand good basic nutrition, supplementation and strength and conditioning, but also the ecosystem to which I am referring in the title of this piece.

### **Ecosystems**

Sometimes we find ourselves so caught up with the detail – grams of macro/micronutrients, precise Kcal intake, blood work results, minutiae of periodised training programmes etc – that we miss the bigger picture; such as “season of the year, changes of the wind, age of the individual, situation of his home” in the Hippocrates quote.

To expand the analogy further, we need to view the entire ecosystem of the rain forest rather than just reading the growth rings of an individual tree to totally understand the nature of the client intervention task we are dealing with.

Most readers of this magazine will be familiar with the functional medicine tools, such as the web, the matrix, and use of a client’s life history or ‘timeline’ in diagnosing and treating the root cause of an issue; as opposed to the mainstream approach of simply dealing with symptoms. The ecosystem theory is really an expansion of this thought process:

- The ‘growth rings of the tree’ are the minute details of the person seeking your assistance; e.g. the nature of their sport, their nutrition, their

► any problem.

As much as any practitioner may want to assist with as many aspects as possible, we need to be very sure of our own 'pay grade' and not stray into areas where intervention may cause more harm than good.

A perfect example of this is eating disorders or disordered eating. This is a subject explored at some length by Burke & Deakin in the 5th edition of their book *Clinical Sports Nutrition*. The qualities that help make a successful athlete – goal orientated, diligent, strong willed, disciplined, ability to withstand discomfort and very focused – are also those that can leave them open to problematic relationships with food, particularly when added to the aesthetic nature and/or weight restriction in certain sports (1).

It's the point at which this disordered relationship tips into an actual mental health problem that we need to be very careful.

Again, using my own experience, some years ago I was asked to assist a female track and field athlete who began to blame deteriorating performance, bad days at work, arguments with her boyfriend, and even late trains or poor weather on the fact that she was "fat". I regard myself as being fairly empathic, but a phrase out of turn here could have destroyed this young woman and we had to, very carefully, start looking at professional medical options.

## A duty of care??

In addition to this ecosystem application/extension of the functional model, it's worth thinking for a while about exactly what we are trying to achieve with our athletic clients (elite or recreational) and where our responsibilities as practitioners start and finish.

The chances are that we will be initially consulted because the client is unhappy with some aspect of their health, nutrition or performance; they want/need to be fitter, stronger, faster, bigger, smaller, or a physiological problem is impacting upon their training and/or competition status.

Either at this starting point, or later in our involvement, we need to decide if we are purely a performance-based coach or if we have a greater, longer lasting obligation towards our charges.

There was a famous study undertaken some years ago, The Goldman Dilemma (2). A selection of Olympic athletes were asked: if they could take a pill that would guarantee them a Gold medal BUT would also kill them after five years, would they take it? An amazing 50 per cent of them answered "yes". It is in the nature of athletes to achieve and with the benefit of youth, future possible health issues seem a long way away.

Would you be the one to prescribe the 'magic bullet' in the knowledge that your athlete (and you) may be able to bask in the glory of competition success, but the inevitable consequences (maybe long after your involvement has come to a close)

are compromised health?? An interesting philosophical question.

Examples of pure performance coaching may come from the old Soviet/Eastern Bloc model, when the sole purpose of a training regime was to produce elite athletes (or soldiers) without any thought for the collateral damage that was inflicted along the way. History is littered with examples of medal winning gymnasts having had their puberty artificially delayed, swimmers and track and field athletes facing their post-competition years with severe physical and mental issues due to the 'nutrition supplements' they were prescribed in fact being highly toxic drug programmes, and intense training regimes that did indeed produce champions but also broke many along the way.

A well-known international functional medicine practitioner tells the story of a Far East sporting facility that requires the athletes to sign the rights to their bodies to the establishment and that in the event of their death, they will be cremated on site rather than being available for post mortem examination. Farfetched? Science fiction? I wonder...

Again, my own initial sporting interest of bodybuilding and the power sports is awash with 'short termism'. Never has this been better demonstrated than with the August 2017 death of a professional 26-year-old bodybuilder, widely tipped to be a future Mr Olympia. The autopsy was completed and later made available on line, it included:

### AUTOPSY FINDINGS:

- Severe cardiomegaly (833g heart) with concentric left ventricular hypertrophy
- Coronary artery atherosclerosis
- Heavy lungs (617g right, 619g left)
- Hepatomegaly (4593g liver)
- Minimal nephrosclerosis and hypertrophy of kidneys (456g right, 503g left)
- Papillary thyroid carcinoma

### OPINION

Mr... was a 26-year-old bodybuilder with a medical history that included; dyslipidaemia, elevated aminotransferases and chronic cough, with episodes of associated shortness of breath. Mr... had a history of using exogenous steroid and non-steroid hormones. He also had a reported family history of early onset atherosclerosis and hypertension. He collapsed in March 2017 during a period of ongoing respiratory symptoms. A subsequent ECG was abnormal with minimal voltage criteria for left ventricular hypertrophy.

One of the many shocking things arising from this is that these conditions did not appear overnight – most were long standing and must have been known to the athlete or his coaching/medical staff. Did he simply not monitor his health or were tests regularly conducted and simply misdiagnosed, or worse, completely ignored? This is one really unfortunate example, where an apparent total disregard for health led to a very early death, but how many others are

'dancing with the devil', with the assistance of coaches, doctors, sport scientists, politicians etc, to demonstrate personal or national success?

There are times when any sportsman will make some compromises to achieve a goal – I have done so myself – but how far would you be willing to go or to assist with before saying "enough"?

In a previous article for *FSN* on ergogenic aids (3), I made the point that "good health is the greatest ergogenic aid that any sportsman could have." This statement, however, may well become skewed as the level of achievement becomes higher and the rewards and/or prestige greater.

## In conclusion

In summary, I believe that our role as practitioners is far wider than the labels we or others attach to us. It is largely our choice about how far we wish to follow this path in exploring the ecosystems that we and our clients inhabit, being forever mindful of the position of responsibility, authority and trust we hold, and that our advice can have far reaching consequences.

With regard to the exact nature of our involvement, we will come under pressure to ensure that our sporting client is successful, and this pressure will increase as the level of performance improves: from the individual themselves, their team or club, other advisers or sponsors, even from representatives of a region or country, if we are dealing with players on a national or international stage. The balance of this success with our duty of care towards the health and wellbeing of the individual is a decision that we all have to make. **fsn**

*• I have found that those athletes with the best physical genetics for their sport quite often lack the mental drive to achieve at the highest level and can be beaten by someone who, although inferior physically, has an outstanding work ethic and will to achieve.*

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## ABOUT THE AUTHOR



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