

19 June 2012: **Sports Medicine in Britain**

1pm

This lecture will have live speech-to-text to give deaf, deafened and hard-of-hearing visitors access to the talk. Please sit where you can view the text clearly.

1.00pm. Chair (DR SAM ALBERTI): Ladies and gentlemen, welcome, thank you very much indeed for coming along to our lunchtime lecture, kindly sponsored by Ansell associated with our anatomy of an athlete exhibition upstairs sponsored by AposTherapy. I'm very pleased to welcome Dr Vanessa Heggie, an old friend of mine. We overlapped at the University of Manchester, she has since gone downhill rather, enjoying the small Fenland university in Cambridge is it? I have no idea why you would want to go there, where she is teaching the history and philosophy of science. Her research area is particularly interesting, and very obviously caught our attention when we were thinking of putting this programme together. She's done some various interesting work on the History of sports medicine which came out in this fine Manchester university press book. Her next book will be on the use of athletes as experimental objects, that is the history of exercise physiology and the book after that I have got it right, will be on the history of scientific exploration in the 20th century. She has a diverse portfolio of research interests. But it's going back to her roots as a historian of sports medicine that she will be talking to us today. I should say that the emergency exit is just here... and if you would like to make use of the speech-to-text facility - can everyone see? And appropriate lines of sight... in which case, I will hand over to Dr Heggie thank you.

DR VANESSA HEGGIE: Thank you very much for the introduction, so when I tell people I work on the history of sports medicine the single most common question I get asked is - when did that start? I know one of the really annoying habits that academics have is they are unable to answer a simple question with answer! And it's much more complicated and you get half an hour of answer, I have been trying to decide my fast answer to this particular question. I have narrowed it down to when did this start in Britain? That's where my expertise lies and one answer is 2005. Because that's when sport and exercise medicine becomes recognised as a specialty in the UK. As I'm sure many of you know, being recognised as a specialty means there's a protection given to specialists in sports medicine and a recognised career path and schemes of training and so on. But obviously in order to get all that together there must have been people campaigning for sports medicine to be recognised as a specialty, and

must have been people who could design curriculums and practising some sort of medicine associated with sports. So the specialty existed before official recognition. Another answer for Britain would be 1952 that's when a small group of doctors wrote to the major medical journals to announce they were setting up a new association, the British Association of Sport and medicine which is now known as the British Association of Sport and exercise medicine that's BAS(E)M. That leaves us with the specialty - mobile sound... in order to give doctors the idea the organisation was necessary and useful they had to be working in some area of sports medicine earlier. If I start tracking back to find when this really began, the British Boxing Board of Control gets its first honorary medical officer in 1946 And the first book by Charles Heald that's called Injuries in Sport is published 1941. In 1907 the sports newspaper carried a special problem on medical problems in sport written by Dr Lindsay the honorary medical officer for Chelsea Football Club. His job title suggests that in professional sports football and boxing there were doctors involved regularly with team care and training. Often when you look at the records it's not just doctors but masseurs physiotherapists first aiders and so on. In fact, by 1870 there's a hospital that's known for its treatment of sports injuries. John Allison a slightly alternative medical practitioner, he is not qualified as a doctor but specialises in physiotherapy, massage, physical treatments, found Matlock house just outside Manchester using money he gets as a bequest from a millionaire from Bolton who he cures after the guy fell off the horse I think for a sprained ankle. This is a hydrotherapy hospital that offers hydrotherapy and a range of other physical treatments. What you are seeing on the left-hand side there is rather terrifying electrical heat therapy. And this could get up to 500 degrees of dry heat used to treat sprains and strains and the guy in the bed is from Aston Villa if I remember correctly. This is offering physical training, therapy, medical gymnastics massage basic first aid treatment, and careful regulation of diet and an enforced ban on alcohol which apparently was crucial to heal up footballers! The players coming here are recommended to do so by their club doctors. It's alternative medicine but has a certain level of respectability. By the time of the beginning of 20th century it's so well-known for treating footballers that it's colloquially referred to as the footballer's hospital in Manchester so the history seems to start at the same time as the history of modern sport at the end of the 19th century Victorian era where we really see the beginning of competitive team games and celebration of fixed rule athletics and restarting of the Olympic games in 1896. As a historian I have a real problem with that answer, it seems terribly anachronistic to me, and he didn't call himself a sports doctor. Nobody said it was sports medicine. Nobody used that phrase in their books or pamphlets or newspaper articles. Although there were doctors, and there was sometimes surgeons rather than physicians, who were the honorary medical officers of football clubs, they also had an awful lot of honorary medical... this didn't require them to have any specific skillsets. To earn extra money they could be the honorary medical officer to a prison or school, or to a work house for the poor, and these weren't necessarily thought of as being specialties why's where you needed particular sets of skills in order to be able to do the job. When you look at the content of the medicine and the practice, it looks like normal medicine and doesn't look

any different to the treatment. It's just medicine being applied to sportsmen or in a sporting context. It doesn't have the academically coherent to be a specialty. By and large, they are being given the same advice as anybody else's and the only difference is the ability of the sports person to pay. Not because we didn't have specialisms in the 19th century. If you ask me about specialties and it started in the 19th century and this is a time when increasingly ambitious young medical men who find the marketplace is very crowded and difficult to get recognition are beginning to represent themselves as experts in particular little areas of medicine, founding new journals and hospitals. It's also where the scientific content of medical education is increasing to the point where it seems possible to be an expert in a particular area rather than a generalist who understands the entire art. People seem to be doing sports medicine and there are plenty of specialties going on the specialties of sports medicine doesn't appear till around 1,900 and there's a neat way to visual this is the case I don't know if anyone has seen a Google Ngram before? They have digitised millions of books and enables you to search for words and phrases in the books, they have the useful programme which shows the frequency with which they are used on time and this is for ophthalmology, and as you can see and make out here you see a little bit of activity in 1840 but it's becoming a specialty and mentioned around 1900 middle and up through the 20th century. You see a similar pattern to gynaecology which starts around 1860 and popular at the turn of the century and a dip during World War II, and neurology which has a clean straight line of popularity through the 20th century. Sports medicine, there's not the same pattern and picks up in 1950s through the second half of the 20th century. So frequency with which the phrase uses is back to the 1950s and these Ngrams have weaknesses in limitations and they are not all books and there are difficulties with the way they are digitised etc. But having done my own survey work of books and journal articles and archive materials from the first half of the 20th century this roughly correlates with what I have already found. I found lots of people doing medical things in association with sports events and doing medical things to athletes. There doesn't seem to be the idea that there's the thing called sports medicine that you can be a particular expert in, that doesn't appear until maybe the 30s, 40s and then really flowers in the 50s. As a historian of sports medicine I have two tasks one is what I call the empirical task the who, what when and how, and who was the first sports doctor? When was the first sports hospital built etc? And I also think it's necessary for me to answer the wide question which is why is it we seem to see sports medicine as a specialty in 1950 and not in 1850? One thing worth considering when answering that question is how we in sports medicine is as a specialty? It's a very um... baggy and huge entity. It includes everything from orthopaedics through to the psychology of winning, to biophysics to nutritional advice, and its patient group is diverse it's the elite physiology of Olympic athletes through to school children running races through to an obese bank manager who has had her first heart attack and given a prescription of exercise to help her rehabilitate. It's no coincidence sports medicine is dominated in the UK by general practitioners and they are one of the few groups of GPs as a rule encounter such a broad range of needs and patients. So there are several different ways in which we can

define medical specialties and the obvious one is localised pathology, and so dermatology, ear nose and throat as illustrated top left is cardiology. Secondly we have specialties based on a particular skill and so radiology or use of the ophthalmoscope in the use here, and we have diseases that fall into a certain family like cancer. And sports medicine and sports science don't seem to obviously fit into any of those categories we know it's all sports of body systems and no particular technology involved and given it's everything from anorexia to athletes foot it doesn't fit neatly into disease types. The fourth way for the specialty is to argue your group is different and we see that for the very young in paediatrics and old in geriatrics. Here they build up the argument that the athletes are different to the rest of US need special treatment. I will try and give you some of the empirical history about how this happened the who's and what's and whens and I will try and tell you two hopefully interesting but at least new stories you have not heard before about sports medicine. As well as trying to tell you the stories I will try and show how they help support my argument that in some time in the interwar period around 1950 athletes came to be considered a special patient group and that's why it kicks off in the 1950s. I will start with something I think closely relates to the specific specialism of this institution and I will talk particularly about the treatment of strains and sprains, and rehabilitation after broken bones. It's a little bit about surgery but a lot about massage, physiotherapy graduated rest and exercise etc. One of the most long running controversies in this area is the balance between rest and exercise when it comes to healing injuries, and particularly serious bone and tissue injuries around the joints particularly.

British surgeon John Hilton publishes this series of lectures on rest, and pain between 1860-3 they come out in the Lancet and they were very important works, and not specifically about orthopaedics injuries but more about pain and rest as a general treatment. But he often uses examples from orthopaedics broken bones, and particularly the treatment of injuries close to joints and the problems you have with having to immobilise those to enable people to heal. And he is drawing on theories from physics to make some of his arguments here. The laws of the newly discovered laws of thermodynamics are often used by doctors in this time period to understand the human body. There's metaphors about the body as an industrial machine. The idea is you have a fixed store of energy you get from food and distribute that around your body as is needed. If you are doing something exceptional about healing up the injury less of your energy is to spare for your daily injuries and you should rest. And a similar logic is to explain why you shouldn't swim after a heavy meal you are using the energy for digestion and there's a risk of cramp. It's used to explain why women shouldn't go into Higher Education we will use the energy in our brains and we will become infertile by studying too much! Laughter... an alternative vision was published by a Frenchman 30 years later, Lucas-Championere who published very influential massage and mobilisation in the treatment of fractures which has a very different vision to Hilton's. It is

particularly championed in the UK by a surgeon William Bennett who wrote a series of articles in the Lancet defending the idea of mobilisation and movement to help injuries and condemned the incubus for the strains and fracture treatment. This is a quote from one of his articles where he says...

The usual method of treating fracture by prolonged retention of the affected limb in splints which allows practically no movement of the soft parts of the fracture leads to a large percentage of the results which follow upon fractures especially in the vicinity of joints. And the establishment are slower to take up the idea of rapid movement and exercise therapy the British medical association form of fractures committee reports in 1913 and its reports are ambiguous about the relative value of rest versus exercise. World War I is what really changes the stance because this is a situation where orthopaedic surgeons the newly professionalised physiotherapists first aiders and so on, are experiencing a much greater number of otherwise fit and active young men who have traumatic limb disorders. And their experience shows them that relatively rapid use of movement and exercise is useful not just for the healing of limbs and crucially for psychological healing of the young men. So by 1920 what you find are that there are lots of references back to the bad old days when we used to use Hilton. Now we are in the good old days where we use lots of movement. This is a quote from one of the earliest sports doctors doctor RS Woods based in Cambridge, and he competes in shot put for the British Olympic team. Here he is looking back on his earlier cricketing career.

When I was 17, I had hoped to be in the Dulwich XI as well as the XV for two seasons but a sprained ankle one summer water on the knee the next blighted by cricketing ambitions and thanks to the useless treatment of those days when Hilton's classic Essays on rest and pain had set the clock back for many years to come. This is around the time William Bennett is writing to say massage and mobilisation is the way forward. It's worth thinking about sports related medicine what were the people doing to their patients at the time immobilising them or using exercise? When I dig around in material I find that physicians dealing with sports people are early adopters of the practice of movement, massage and exercise therapy. They seem to be using it long before it became widespread from the 19 20s onwards and I mention the series of articles in the news and by Chelsea's honorary medical officer, and in any one of the columns about sprain he emphasises the use of exercise and condemns the use of immobilisation, he says in the case of football's knee, splints should never be used for sprained ankles prolonged rest is only mentioned in order to be condemned. And Lindsay is writing mostly for professional sports say football, and rugby to a lesser extent cricket but total amateurs and hobby sports people were getting similar advice. If you picked up a training manual, and it had a section on medical treatment it is likely it would tell you to rest a little bit but moderately but you should be getting back into the

sport graduated exercise will help you back to full strength and doctor woods is perhaps unlucky in consulting someone who is interested in sport.

So doctors associated with sport were amongst the first to pick up the importance of exercise rather than rest, and what you begin to see which is crucial for my argument is that a lot of these doctors begin to argue when it comes to this injury athletes need a different kind of treatment to the rest of us. For one thing the situation with the professional club doctor is different, their bodies have an intrinsic value to their employers, the managers the owners of the clubs. As the footballers hospital suggests there's quite a good market for anyone selling medical care for athletes promising exceptional cures for the players. The athletics news often carried adverts for medical treatment anything from rubs to surgeons. I couldn't find a copy of the original advert this is from around 1904 from the athletic news it's advertising the gifts of Mr PJ Ward, the man with the gift outclassing skill in Manchester and Bolton can save insurance companies and football clubs thousands of pounds he has the greatest percentage of absolute cures in England.

As the performance standards in sports crept up, they were pointing out maybe they had higher requirements for rehabilitation than normal people. And a man or labourer can go back to work if they covered 90% or maybe a soldier with 90% recovery but an athlete are looking at a fifth of a second difference, and they need 100% that's what the doctors start to argue. To push on to the point where I'm really interested in it the 1950s by 1954 Adolphe Abrahams who is Britain's first ever sports doctor was the first to accompany the British Olympic teams and one of the founder members of BAS(E)M said the athletes regard themselves as a privileged person in terms of their medical treatment. That meant rapid fully functional recovery from orthopaedics injuries and the ability to continue training and a requirement that perhaps normal people don't have, what might be good enough for most people by the 50s was not good enough for sports people. They needed specialist sports treatment and to provide that treatment. The story of rest versus exercise is one where for me the sports doctors make my argument for he they go through the neat process and explain it's the same and later on it becomes different for athletes. That makes things too easy for me as a historian. My second example will be more difficult and the reason it's more difficult is because it's a more controversial and secretive area of practice, that is drugs and doping. When I tell people I have written a book about sports medicine if they are not asking me when it started they are asking about drugs and doping and in fact, it's not. I'm much more interested in the routine daily practice of sports doctors, what it is they really did rather than the dramatic stories everyone else has written about. It shows that there's a knee jerk reaction, and association between doping and sports medicine. And specific bans on specific substances come into international sports in the 1960s which means they

are being discussed and talked about by sports organisations in the immediate post-war period particularly the 1950s. We can see that correlates with you know the point in which I'm beginning to say I think sports medicine became a specialty the interwar period, maybe that's a total coincidence but means investigating the story of drugs and doping. There are two different ideas and athletes started taking drugs in the 50s and therefore we introduced doping control or we can say athletes did take drugs prior to 1950 but for some political or social reason it began to be a problem and that's why things changed in the 50s you don't have to spend long in archives to discover that it's the second that's the case athletes were definitely taking drugs before modern sport. The controversy that I have come across is 1876 I have seen historians claim there were events in the 1860 but I'm not sure of that. And this is a pretty straightforward story this is about the famous American pedestrian EP Weston, and he is the guy on the west hand-side looking serious, and 1876 he comes to Britain in order to challenge local walkers to win some money in competitive races and to publicise the sport he is keen on. In February 1876 he sets off to walk 115 miles in 24 hours around the agricultural hall in London. He has a British competitor companion, not this guy this is flamboyant Irish walker O'Leary! And I couldn't find a picture of the British guy, but Mr Perkins accompanied him on the attempt in the agricultural hall. Weston has a particular outfit here in the leggings and high ankle boots but the British racer Mr Perkins wore thin soled shoes which he walked through until the feet were bloody and had to put big boots on instead and he had to drop out of the race after 14.5 hours, but Weston came in a little under his goal at 109.5 miles and then there was the scandal. The scandal was a physiologist Ashburton Thomson wrote to the British Medical Journal to say during the competition Weston had been chewing on coca leaves, and they are a source of cocaine, and they are a stimulant. And it is unusual to see the stories breaking in the British Medical Journal. A twist is that Ashburton Thomson couldn't care less about the... and the problem was that Weston was supposed to be a guinea pig and physiological experiment but he was worried by the fact the results would be ruined and Weston had been persuaded to collect his urine in order it could be analysed at St Guy's but Dr Pavy as luck would have it the bucket in which his urine was being stored was carelessly handled by the attendant who through slops into it and the cocoa had no effect on the results and science was saved everyone was happy! I won't go into detail about why they were doing this about protein metabolism but my point is this is a famous athlete who has been covered extensively by newspapers on this side of the pond and the other and he is openly taking a form of cocaine during the race and nobody cared. There was no scandal. And Victorian athletes used a huge range of chemical products, and these were largely drugs used for fatigue and pain. If an athlete felt fatigue or pain they took one of the drugs and that was a completely acceptable practice. We have the lovely advert for Hall's coca wine, and it says it's invaluable for treating flu, and sleeplessness, and mental fatigue. And there are commonly used tonics and this is Huxley's Vigor and some of the athletes injected this into their muscles and some took in an alcohol suspension. It's difficult to tell where the pharmaceutical products blur into nutritional supplements and for example the Coca is a wine and

alcohol itself is used nutritionally and also as a medical drug, and Weston didn't think they were effective. He had a tonic he much preferred and thought was much more useful in improving his performance and this this was Liebig's extract, and we know it as Oxo. To us it's a food but to him it was a stimulant and it was a drug a medication and it helped him with his sporting practice. So I want to make the point that it's you know the boundaries between nutrition and pharmacology and an acceptable drug and unacceptable are different in this time period to what they are now. That said it is the British again and little known fact, the British who bring in the first ever doping ban at an international event at the London Olympic marathon in 1908 and the organisers insert a line that say no person shall take dope of any kind if you are caught taking it you can be asked to drop out that sound like the first modern doping ban. It isn't and they don't make a definition of what dope is, and maybe they meant Liebig's extract but they were the official sponsors, and they gave out Oxo hot and cold and obviously the extracts were OK but no idea whether the cocaine tonic is OK.

This isn't about cheating and this rule only applies to the marathon and any other event in 1908 you can take what you like and it's cleared that what inspired the ban then is the worries about the health of the athletes and the previous marathon in the USA had been a total shambles and the winner had in fact ridden some of the way in a car and was disqualified and the eventual winner staggered over the finish line in a poor state and was known he had been given Strychnine and brandy along the route. And London were keen not to see a mess again like that and they introduced the first ever medical screening for the event and you had to have a certificate and an examination to show your heart was capable of getting through the race. My interpretation is these rules are about protecting the health of the athletes and the marathon is seen as a grueling event and there are worries people will push to their limits and on top of that they will take something like alcohol and Strychnine, and those drugs are fine if you are sailing or boxing but in this particular event there was a risk and best be on the safe side. Especially since the course was going past the royal box and no-one wanted anyone dying in front of the Royal Family! And it's that the dope was not necessarily cheating but in the wrong circumstances it can be dangerous possibly embarrassing, and that's through to World War II the attitude. And we have Wolverhampton Wanderers Football Club had a very good season and their eccentric coach Frank Buckley here with his two dogs, and he announced to the press he had arranged for dubious gland expert Menzies Sharp to give injections to the players to revitalise the players on the pitch. And the use of these extracts is not unusual if the 30s and this is a boom time and this is the decade in which things like testosterone are isolated for the first time and identified. It's quite possible this is a bluff and the players afterwards are self-contradictory and some talk about injections and tablets but it may be they weren't getting anyone hormones but the consequences were the other clubs were going to investigate hormone therapy, and even a county Cricket Club were going to consider it

as a possibility if the players didn't pick up their act and there's a question asked in parliament about whether or not it's OK and the British medical association set up a sub-committee to investigate the use of hormones in football but crucially they are not investigating whether or not it's fair. What they are investigating is the health consequences of taking the drug and what they are worried about is that players might be coerced into taking something that might be bad for them. Is it fair to the players not is it fair to the team. This jokey headline gland treatment has the same effect as love, says doctor, it might be cheaper to get your football players to fall in love and have a rush of testosterone rather than have the expensive injections. World War II gives people serious things to think about and the 50s something changes and it is unfair and something to worry about. The question is why is it things can change so quickly. Firstly, the stakes become much higher sport is always for national chest beating but the 1936 games in Berlin are nationalism on an extraordinary and unpleasant and terrifying scale after World War II, add to the context that we have a Cold War going on, and America and the Soviet bloc countries are using sport as with a toy prove their political systems could create healthy young fit athletic bodies. In this atmosphere not only is the quality of your performance crucial but it's also the case that suspicions of other athletes particularly from other countries are very high it's not just drugs people are worried about. They start to worry about gender fraud, and question things we would think of as normal like interval training, people are saying is interval training fair? Is it a crazy Finnish scheme the Europeans are going to use. Things we think of as being fine today suddenly become controversial in the heighten time of the 50s. This is the time when it's possible to test for the substances and if you can't test for the substance it's difficult to ban it. And how can someone drinking out of their Strychnine bottle on the route or collapsing is hard to prove. It's actually a British team who develop the first test for drugs and sport and an event that's rarely celebrated and a team of people at the University of London and I think there was a college who were working on the elimination of drugs, and studying the standard pharmaceutical trials and one of them Professor Arnold Beckett was at a conference and someone mentioned his work is useful for sports and he offered his services and the test is done in a cycling race of Britain and a much bigger scheme is tested at 1966 the football World Cup and a famous... and nobody tested positive for amphetamines in 1966 but they would have been disqualified if they had.

This is a subtle and difficult point and my argument is if we think athletes aren't just like us but a bit better and fitter it becomes impossible for us to ask them to abide by different life rules. We can expect them to abstain from the normal daily routines of drug taking we might otherwise have, it's reasonable to say you can't take this cough medicine and beer, and you have to tell people where they are, and they are not normal any more, and their performances aren't and they don't have to abide by normal rules that you or I do. I think this happened because the more doctors and physiologists

worked with and studied athletes the more they seemed to find them to be different physiologically than the rest of us. Cardiology is a great way to define this in the 20s everybody knew if you had an enlarged heart it's a symptom of heart disease and here are the elite walkers who have the grossly enlarged hearts and are fit and healthy. How do we explain that or a recruiting station to sign up for the Army if your resting pulse rate is 50 beats per minute you will be rejected that's clearly a symptom of heart disease and here are the endurance cyclists who have resting heartbeats of 50 beats a minute, it seems to be normal for them, and this is where the argument is this is a different special group and it needs to be understood so you don't reject them. And this is the reason that you start to have the sports medicine beginning, and that answer really matters if the answer is when did the medicine start is around the 1950s and suddenly Britain becomes a pioneer previously it was lagging behind everybody else and for this answer it becomes more important. There are lots of organisations and institutions that are formed in the first half of the 20th century for the study of medicine relating to exercise. The French society for the medicine and sport is 1921 and their associated journal the medical view of physical education in sport is 1922. The Germans are considered to be the first they had the first sports medicine Congress in 1912 and college in 1920 which looks like they are pressing ahead but German specialists and the people working in the sites argued that sports medicine should not be considered a specialty. And a quote the physiology of sport and functioning could not be divorced from human physiology and this is about the normal function of the human body during exercise it's not a special thing, and the focus is the clue this is not about sports medicine and special athletes but about physical culture and national fitness, and national strength a healthy workforce for industry, and a healthy population from which you can recruit your Army. And this is empire day physical drill display by a particular lads brigade and the idea I like this picture it shows the connection between routinised physical education for young men and schoolboys and possibly military fitness and recruitment. The organisations that are interested in this sort of activity are also studying elite athletes it's not the main focus, and what they are doing is the first international umbrella organisation the AIMS Association internationale Medico Sportive is founded at the winter Olympics, and it becomes FIMS Federation Internationale de Medicine Sportive, and it organises Congresses to get together and talk around the same time as The Olympics and sometimes to do scientific studies there, and this is the team that went out in 1928 to conduct experiments for athletes and it says at the bottom it refers to the people who conducted the sport physiological examination and it's still not using the phrase sports medicine in 1928. And that's Professor Buytendijk, the first leader of FIMS. As they studied the athletes they realised they were different and after the shock of World War II they were in a position to reconfigure and recreate sports medicine and there was going to be a sports medicine for the elite not the masses, and one of the first organisations is BAS(E)M, and the German democratic republic doesn't get it till 5 3 and Americans till 5 4 and Australians don't get theirs to 6 3 and the Canadians till 6 5 and then it's sports science and not till 1970 sports medicine in that list Britain comes first people are often surprised we strongly associate British sports with amateurism and we

forget how much Science & Technology goes into them, and how very competitive, and in some cases world leading they were, and it's quite true to say 1950s sports medicine compared to today is grossly underfunded and developed and wrong about a bunch of things, if you compare British sports medicine in 1950 fairly which is to earlier sports medicine or French in the 50s it's going OK, and in some cases it's doing better than OK. And luckily for my argument for BAS(E)M the records back this up, it's a small organisation when it starts and booms into the 60s and is popular and does provincial meetings and social events to expand the population from London. And their first ever provincial meeting is in 1951 and the title is athletes different, and every paper says yes athletes are different, a special patient group and the first ever book with the title and phrase sports medicine in title is by John William another pioneering British sports doctor, and published in 63, he makes the lovely statement, I came across after I had done a lot of my research and neatly sums up what I have been trying to argue the intensity and diversity of modern competitive sport and the knowledge and experience of the physical educationist has resulted in the emergence of a new type of person the trained athlete and whether amateur or professional he is as different physiologically and psychologically from the man in the street as the chronic invalid and therefore you need a specialist to treat them. We can't take his word for it he wants his hobby activity to be recognised as a proper activity. We have another place to turn to, and that's governmental organisational recognition, the sports council. And the sports council is founded in 1965, and on the recommendation of the Wolfenden committee on sport. And this was supposed to look into the community and social effects of sport and looked at school sports lay exercise etc, it recommends that a sports council is founded to be like the Arts Council to take tax money and put it out into worthwhile schemes in the community. Despite the emphasis this is not what the sports council funded when it comes to science and medicine, in the first five years of the activity it gives out 35,000 pounds to sports medicine one in every £5 of the entire sports council budget goes to the science and medicine, and of that 90% goes to basic physiological studies or the care and treatment of elite and professional athletes and Olympians and boxers, and it is about elite sports medicine. That changes, and the specialty we have today is not sports medicine it's sport and exercise medicine and the exercise that's lost after World War II is packed back into the specialty during the 80s. I don't have time to talk through that with you but the gist is in order to make the new specialty of interest for the NHS, and to the Ministry of health and of sport, particularly in times when public services are being cut in the 80s and you have to make a very strong argument for value of your activities that's when sport doctors began to reclaim exercise as part of their remit particularly too in a period of increasingly sedentary lives and obesity and disease like heart disease, and it seems like experts in health and exercise are particularly useful to the NHS. I have taken an hour, 45 minutes to answer a very simple question, and that was when did sports medicine start? Now my answer is you can see bits and pieces coming together at the end of the 19th century but consolidates in the interwar period and reaches its mature form in 1950 then it substantially is re-interpreted at the end of the 20th century thank you for patiently waiting for a simple answer.



APPLAUSE

DR SAM: Thank you very much indeed for packing so much in and illustrating it so nicely I believe you have time for a couple of questions? Open up the floor.

Audience: what did you mean by interval training?

DR VANESSA HEGGIE: I mean the Finnish guys who were recommended this, and where you do very fast brief training, and you run for a brief period very intensely and you jog for a period, and so it's very hard cardiovascular exercise and lighter periods in between at short intervals and there's a range of ways it was done in the 40s and 50s. Audience: that's how most modern athletes would change?

DR VANESSA HEGGIE: Yes when it's first introduced there was discussions that it's a dubious treatment...

DR VANESSA HEGGIE: Yes Fartlek is one of the guys...

DR SAM: Yes,

Audience: would people engaged in something like the Everest climb or other examples of extreme challenges would they be a matter for this expertise?

DR VANESSA HEGGIE: Yes, I mean, that's what I was hoping would be the case when I tried to segue from the project of history sports medicine to extreme physiology and my instinct is to say no they are discreet fields of research and there's a level of general fitness about mountaineering but there doesn't seem to be the same sort of... people are always trying to find the perfect body type for the mountaineering and prejudices it has to be short or tall or thin people do better etc and national prejudices and body type is right for it but the studies show a lot of it is psychological or genetic or about your metabolism and that's hard to predict by looking at you and there are a variety of different ways people can reach the top of mountains and the physiological study of people who do well like Reinhold Messner it's hard to find a thing about them that enables them to do the activity but it's easy to find the quirk that makes someone a very good say 100 metre runner or high jumper. Mountaineering is holistic activity and so there doesn't seem to be that special patient group for that extreme physiology that there is for competitive sports.

The time element is lacking, and they haven't got the time pressure perhaps...?

DR VANESSA HEGGIE: Some of the more elite climbers are training as hard as elite level athletes and they are doing it as a job if their job is acting as a guide for others but it is a different... a sort of activity where it seems to be the only way to train for it is to do it but that's not the case for athletics and other sports.

Audience: to add a point on the idea of mountaineering I think one of the things that is shown is that good mountaineers are like people who live high anyway, and they have the ability to utilise oxygen more evidently and it's not just higher levels of haemoglobin so there's a genetic and environmental aspect to the whole thing.

DR VANESSA HEGGIE: Definitely, and there are certainly people who do very badly at altitude and you can identify them genetically but not the one right way to be a successful mountaineer and I don't think they have boiled it down to that but there are those with a genetic advantage and it isn't just about haemoglobin and mitochondrial DNA is also sequential, and there's the connection between the use of altitude training for athletes and some do very well for the training and but for some it

makes this worse but it's not always obvious who will benefit, and a great deal of it seems to be about the psychology of it about whether you think it's going to work or not and a lot of research done in the late 60s because of the Mexico city Olympics at mid altitude and a lot of people were concerned about the effects on athletes but the psychosomatic effect seems to discern them and there was the idea that athletes were fragile and they would see a decline in performance if you scared them. Audience: in Australasia, and sports medicine is there in relation to British but in terms of the preventative medicine and the grass-roots would you say Britain has been more progressive in leading things but is there any other country that's doing that as well.

DR VANESSA HEGGIE: So, about the differences between the sort of very well developed American systems of sports medicine and what's going on in Britain whether or not we are better at preventative my instinct is yes, my expertise is up to 2005 when it's specialised and after that I can't promise anything, what I find interesting is the American system they don't have a specialty of sports medicine they have sub-specialties you do orthopaedics and you do the sub specialty or say paediatrics but in Britain it seems to be a much more GP-led based system and they have because of the NHS they had a much stronger case to make for the value of their activity to everybody, not just the people who could afford to go and strain their arm playing golf in the 80s you had to make the case for everybody else but in its nature we have the concern about public health preventative care, remedial exercise in the way that you don't necessarily get in much more privatised health care systems and I think it's to do with the health care system rather than the scientist but it's the superstructure of the politics that makes it slightly different across the Atlantic.

CHAIR: I'm interested you talked about The Olympics a bit in your talk and you talk about it a lot in the book it is a major event as we are about to experience and it's one of the large sporting events is there a disproportionate amount of attention paid to The Olympics in terms of the development of sports medicine how closely are they related?

DR VANESSA HEGGIE: If there's a different amount of attention paid to it it's probably my fault as a person writing about it yes there probably is actually, there's a really crucial event and this is the 60s altitude study and that is the big money come from the sports council and before it's put together it's giving a grant for people to go out and study the effect of the altitude and that has a formative effect of sports medicine in Britain and the structures around that time period I think. And there's definitely the idea that this sports medicine changes at the time of the Olympics games and there's the

structure the superstructure that helps people to meet and get together at Congresses in terms of the actual scientific work that's done at the Olympic games, no, not really. There's, the 28 games is really important and the idea that athletes hearts are different that's a crucial event and there are other bits and pieces and I think it's 3 2 and 36 are important for the development of public health treatments for athletes foot and you can find the little bits and pieces of little things that come together but no I think things like the Commonwealth Games could probably have performed the same function and some of the hearts studies are done at the Commonwealth Games and heart studies are done at the pan-American games but the Olympic games carry such weight and freight and it's sometimes easier to get funding to do the activities and I think they are disproportionately influential for that reason rather than because they provide particularly special ways you can do the research.

CHAIR: And will the 2012 games keep you busy?

DR VANESSA HEGGIE: Yes I think I'm going to couple of events and I managed to get tickets looking forward to that anyway!

CHAIR: Unless there are further questions, I would like to round-up with a couple of thanks, and points of order if I may you have got an evaluation sheet on your chair and we take great stock about them and read every single one, so do please take a moment. You should also have with you, or get one on your way out a copy of our events brochure the next event is Hayley? It's the 18 August with spaces and it's the Council of sports day. And I would like to thank our sponsors, AposTherapy and Ansell and Hayley and our events team and finally I would like to thank Dr Heggie coming all the way from Cambridge to give us the fascinating talk today thank you very much indeed.

APPLAUSE

DR SAM ALBERTI: And speech-to-text actually thank you...