

Andy Murray's Appliance of Science
By Jim White

If the Caledonian superman wins Wimbledon this year, it will be thanks to 50 pieces of sushi a day, a magic potion and a battalion of experts



If you want to know what it is about Andy Murray that makes him stand out from the rest of us – apart from that fizzing backhand return and the huge-mouthed celebratory yodel – it is summed up in two words: osmolarity check.

Today, before he even steps out on to the Centre Court for his Wimbledon semi-final against the huge-hitting Pole Jerzy Janowicz, Murray will have been subject to several of these. He does one every time he pops to the lavatory. The osmolarity check is conducted by one of his staff, its purpose to gauge the percentages of water and minerals in his urine, to show whether his body is correctly hydrated. The fact is, if Murray wins today, it will partly be thanks to the bloke who inspects his wee.

There has never been a sportsman who has been as meticulously assembled as Andy Murray. Allied to his extraordinary natural skill and ferocious desire to win, what has carried him to his fifth successive Wimbledon semi-final is the relentless appliance of science. There is nothing in his life that is left to chance, nothing that is not measured, calibrated and balanced. This is a man whose route to the summit of his profession has been mapped with a meticulousness bordering on the obsessive.

Take his diet. He will have started eating at 7.30 this morning. While many of those arriving at Wimbledon's press restaurant will have begun their day assaulting a tottering Himalaya of fried starch, Murray will have eaten yogurt, fruit and a bagel smeared in peanut butter.

On his way to the All England Club he will have nibbled at a protein bar and a banana. He has not always got on with bananas, incidentally. In his autobiography he described them as "pathetic fruit". But his nutritionist recommended them as a means to deliver potassium to the system, essential to maintaining

cardiovascular health. So he overcame his disdain and now eats lots of them. No longer does he describe anything as pathetic if it can help him win.

Ninety minutes before his match he will have a plateful of chicken and rice, loaded with energy-delivering protein. Then, afterwards, there will be the sushi: he eats up to 50 pieces a day. He was eating some on Wednesday evening as he spoke to the press after his quarter-final victory over Fernando Verdasco. The mix of protein and carbohydrate without a hint of fat is reckoned the perfect way to replenish physical resources after an intense physical workout. So much of the stuff does he consume that he may be single-handedly responsible for the diminution of the world's tuna stocks.

And all the while he will be drinking. Murray is rarely seen without a bottle in his hand (not alcohol, obviously: he is a lifelong teetotaler). On court, between games, he sips at a cloudy, lemon-coloured liquid. In an era in which everything in tennis is commercialised, with every inch of his clothing sold to the highest bidder, it is notable that his drink is not branded. It is too important for that.

Mixed by his nutritionist, it's a formula of glucose, sodium, potassium and other minerals that help sustain his energy and concentration levels. All day he sips the stuff, to ensure he meets the demands of those osmolarity checks. He takes a packet of it in powder form everywhere with him, adding it to the water supplied on press or commercial duties. Not the fizzy stuff, though: he has been steered off bubbles by his people. Apparently they interfere with digestion.

Murray has not arrived at this sort of regime by happenstance. He employs experts to tell him what is best in every area of his physical development. Six people spend their lives assessing and checking his body. In addition to his coach Ivan Lendl and practice partner Dani Vallverdu, there are the two fitness experts (Jez Green and Matt Little) putting him through hours of gym work to strengthen his muscles, organising the stomach-churning sprint runs to up his explosive power, conducting the bikram yoga sessions to aid his suppleness.

Then there are the two physiotherapists (Andy Ireland and Johan de Beer) who attend to his recovery after matches. Immediately after he comes off court this afternoon the pair will be at work. They will supervise his ice bath and then start the massage. This is not the sort of relaxing operation the rest of us might enjoy in a spa hotel or on a Thai beach. It is a deep-muscle manipulation, conducted with elbows and knuckles; a gasp-inducing procedure, the purpose of which is to draw the lactic acid out of his system.

When he has a tough examination like the one delivered by Verdasco, the ice bath and the massage go on half an hour longer than they would after an easy runaround: there is more rubbish to clean out of the system. So long did his recovery routine take on Wednesday that he did not leave the All England

Club until after 11, nearly three and a half hours after he had finally beaten the Spaniard. That is science in action.

It left him barely 20 minutes to chat with Sir Alex Ferguson, his self-appointed number one fan. But that was enough time to pick the great former football manager's brains about how best to handle expectation. That's Andy Murray all over. Everything, even small talk, is conducted with one purpose: to further his progress.

None of this comes cheap. While the players of Manchester United or the British and Irish Lions or Sky's cyclists participating in the Tour de France might have access to the same levels of scientific scrutiny, they are not directly paying for it. The 17 back-up staff in the England dressing room at the Ashes have their wages met by the England and Wales Cricket Board. Murray keeps his small army on the road out of his own pocket. If he wins Wimbledon, he will trouser £1.6 million prize money. Much of that will already be allocated to pay for all that science.

It has worked, though. Murray has got where he is today through the arduous pursuit of scientific instruction. Physically, he is an entirely different beast from the lanky teenager who first showed so much promise. In his early days at Wimbledon the arrival of a fifth set would see him crumble. Then he was put through a regimen of body-enhancement that means he can now, without a break, do 26 successive pull-ups to a bar, palms facing outwards, arms fully extended (try doing that at home and see if you can manage one). On Wednesday, his gym-strengthened, fully hydrated body was so honed by preparation that in the fifth set he had sufficient reserves of energy to fling himself around court like a Caledonian superman.

But perhaps the most effective scientific application has been on the muscle between Murray's ears. Previously he spurned sports psychologists, on the not entirely unreasonable grounds that unless they had faced defeat on Centre Court, two sets down and serving like a drain, nobody could tell him anything of much use. But since Ivan Lendl became his coach, the difference that both the Czech and his favoured psychologist, Alexis Castorri, have made to Murray's mental preparation has been significant.

His reaction to victory on Wednesday was most instructive about his approach. Compare his response to that of his opponent in this afternoon's semi. Immediately on progressing this far in the competition, young Janowicz was in tears, buzzing with the thrill of it all. Murray's advisers would have reckoned that was taking the kind of emotional toll they would never allow their man to suffer. Leaving the press room, the Pole looked exhausted, drained as much by excitement as the physical effort of smashing those 140mph serves.

Murray, on the other hand, showed barely a flicker. The crowd – and the 10 million watching on television – may have been giddy with the drama of what they had just witnessed. But the man himself was monosyllabic in his press conference; calm, restrained, matter-of-fact.

This is what scientific analysis has taught him over the years of succeeding on the grand slam circuit: do not waste your energy. While Janowicz was as thrilled as any of us would be to reach the semi-final for the first time, Murray did not seem remotely enthused at reaching his fifth. For him, what he had just done was not special. It was what he does for a living.