**When the heat is on**

**By Peter Ryan**

The Western Bulldogs’ preparation for this round’s game against Port Adelaide in Darwin began four weeks ago

when the players started their regular sessions in a temperature and humidity chamber to prepare for the humid conditions expected at TIO Stadium.

Players enter the chamber (commonly referred to as a heat chamber) for an hour session two to three times a week to acclimatise their bodies for the conditions expected in Darwin.

The Bulldogs set the heat chamber to 30 degrees Celsius with 60 per cent humidity.They set that temperature because they know that when the ball was bounced in Darwin last season, the temperature was 27 degrees with 65

per cent humidity.

Heat acclimatisation is important preparation for sport being played in humid conditions.

It causes players to sweat earlier in hot conditions.That’s important because sweating is the most effective cooling mechanism a body has and keeps the core temperature stable at around 37 degrees.

More of the sweat produced is

pure water too rather than electrolytes, allowing the body to maintain the important salts for longer.

Important metabolic changes also occur when players play in hot environments, causing them to use more of the body’s stored glucose for energy.

Time in the heat chamber encourages the body to change its

fuel source so, in simple terms, more work can be achieved using the same amount of fuel.

Such acclimatisation has been

more common in individual sports but team sports are beginning to recognise its potential benefits.

The chamber has four exercise bikes and is about the size of the average uni student’s lounge room.

During the eight-day break before the Collingwood game in round 13, players kept the exercise bikes at about

100 revs a minute, but with the six-day break before this game, the intensity was at around 75 revs.

Robert Murphy is confident it gives the club a slight edge when the team travels to Darwin.‘With my Irish blood, I need all the help I can get,’ he joked.

Each player’s body weight is measure before and after a session.

Nathan Eagleton said the players often put on weight during a session in the heat chamber, as they are so conscious of re-hydrating.

Players drink water, read the newspaper while they ride, and listen to music.

‘We roll the legs and get the lungs moving a little bit so we’re used to it when we train on Thursday before the game,’ he said.

Sports scientist Dr Rob Aughey says the heat chamber reduces the potential negative impact extreme heat can have on performance, giving a team a relative advantage in the hot conditions.

Contrary to popular belief, players do not lose more weight than normal—a three per cent reduction in body weight is the norm—as the players and trainers are conscious of intervening to ensure hydration is maintained.

‘Unchecked, we’d see five or six per cent reduction in body weight during the match and that has serious implications for performance,’ Dr Aughey said.

The thinking behind the one match is enormous, revealing how

hard four points are to win in modern football.

To allow for different sweat rates, each player has an individual nutritional strategy that allows for each person’s unique characteristics.

Players are cooled down using cold towels, spraying mist over the players

or standing them in front of a fan.

Dr Aughey can measure a player’s core body temperature using an ingestible pill about the size of a vitamin tablet that contains a built-in thermometer and transmitter. Players swallow the pill and a reading unit is held next to them for a short space of time to get a reading.

Some players will immerse themselves in cold water before a

match and at half-time.The players also understand that it is not advisable to wipe sweat off their body with a towel as some of its cooling value might be lost in the process.‘In preparation for one game, this is the most (lengths) the club goes to,’ Eagleton said.

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