

JUNE 2025

EQUESTRIAN HUB

magazine

Unbeaten
Rewriting the
record books

Intensive Care
Behind the scenes

**Equine assisted
therapy**
What's it all about?

DOD risk factors
New findings





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On the Cover

Hazel Shannon and WillingaPark Clifford rewrote the record books at last month's Adelaide Equestrian Festival (Image by [Michelle Terlato Photography](https://www.instagram.com/michelleterlato)).



OUR CONTRIBUTORS



Amanda Mac

As editor of *Equestrian Hub Magazine*, Amanda's two long-standing loves, one for horses the other for writing, come together perfectly. In this issue she speaks with Hazel Shannon, who along with OTT WillingaPark Clifford, recently rewrote the 5* record books, and investigates why it is that horses can help people who are stressed, anxious and depressed.



Nicole Tough

An EA Level 2 Dressage Specialist Coach and National A Level Judge, Nicole has over 30 years experience in training, competing, judging and coaching. She enjoys presenting seminars and masterclasses, has trained in Germany, Spain and The Netherlands, and has produced nine very successful FEI horses. This month, she offers the second in her two part series on training for the flying change.

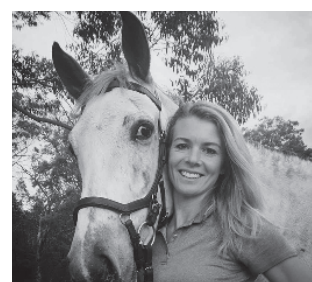
Hazel Shannon

Hazel grew up in Mutchilba, a tiny town north of Cairns in Far North Queensland. After an eclectic early riding career that included English riding and camp drafting, Hazel eventually settled on eventing as her discipline and teamed up with OTT WillingaPark Clifford with spectacular success. They've just won the Adelaide 5* for a record breaking fourth time and their story is in this month's Life After Racing.



Christine Armishaw

Christine is a qualified EA Level 1 Coach and horse trainer who specialises in building confidence in women returning to riding and young riders getting started on their equestrian journey. Based at Otford Valley Equestrian, she runs clinics in NSW and NZ, and is a keen show jumper. In this issue, you'll find Pt. 2 of her eight tips to help soothe your nerves - so if you're an anxious rider, this is one not to miss.



Dr Jennifer Stewart B.V.Sc., B.Sc., Ph.D.

With over 40 years' experience as a veterinarian in mixed and equine practice, Jennifer's special interest is equine nutrition. She was a Senior Veterinary Officer with the Australian Department of Agriculture, Water and the Environment for 10 years, and a Biosecurity Veterinarian with the ACT Government for two years. In this issue, she looks at new findings on the risk factors for DOD.



Dr Clarissa Brown-Douglas

A rider all her life, Clarissa's career as an equine nutritionist has taken her around the world, working with horse owners, breeders and trainers to provide nutrition advice for their equine athletes. She is now a member of the Kentucky Equine Research team, and in this issue explains how to keep your horse happy and healthy throughout the colder months, no matter what their age.



Sarah Gough BVSc/BVetBio (Hons I) DipECEIM, EBVS

Sarah is a boarded European specialist in equine internal medicine and joined Apiam's Hunter Equine Centre in May 2020 after spending two years at Rainbow Equine Hospital, a busy 22 vet referral hospital in North Yorkshire, UK. Her main interests include neonatal medicine, ophthalmology, and cardiology. Turn to Sarah's article to find out what goes on behind the scenes in an equine intensive care unit.



Michelle Terlato

Michelle grew up with horses and has always loved them. When she's not travelling the globe photographing the world's top equestrian athletes, she's home riding her own horses. It's the behind the scenes and the unexpected shots that she likes the best, and in our Behind the Shot feature, she shares her favourites and explains what makes them so special.



BEHIND THE SHOT

Russell Johnstone

One of Australia's top equestrian photographers, **MICHELLE TERLATO** travels the world capturing equestrian athletes in action.

Rider: Russell Johnstone

Horse: Daprice

Event: 2023 Australian Jumping Championships

Location: SIEC, NSW

Camera & Settings: GoPro, Hero 11 Black, f/2.5, ISO 100, 1/1800 sec

Challenges: As a photographer, I strive to evolve creatively and offer a point of difference. So during the 2023 Australian Jumping Championships, I added a GoPro to my kit - and an assistant! After walking the course, we decided the water jump was the spot to be. A GoPro must be safely placed so a horse can't land on it, and the lighting

must be just right. We had to navigate tricky positioning, often with judges and officials in frame, and chose a height that showed both the water and the horse above it. The shifting sunlight added to the difficulty, with an incoming storm constantly altering the exposure.

At first, many images were too early or late, but eventually we nailed it! When Russell and Daprice came through, the skies were stormy but the capture was perfect. After a bit of post-production magic, the final image became something I'm genuinely proud of - a blend of preparation, persistence, and

a touch of wow. Needless to say, the GoPro has become a valuable addition to my kit.

Why this shot is special: This image gets a wonderful reaction almost every time someone sees it. And that's exactly what I love about it. It captures the horse at their most majestic and athletic - a real-life Pegasus in full flight. Daprice's form is lovely and Russell, in his striking red jacket could not be more perfect for the capture. His expression, combined with the drama of the stormy skies, makes this image almost cinematic, and because it was such a unique take, it was picked up by feed companies and featured in several publications.

But the most meaningful moment was when Daprice's owner purchased a copy not just for themselves, but one for Russell as well. Knowing they felt it was special enough to hang on their walls means more to me than any magazine feature ever could. 🐾

Michelle is available for event, commercial and private shoots. Visit [Michelle Terlato Photography](https://www.michelleterlato.com.au) to view her impressive portfolio.



HANGING TOUGH

Training for the flying change

In the second instalment of her two-part article, **NICOLE TOUGH** explains how to train for the flying change.

Welcome to part two of my flying change series. In last month's article, I mentioned that there are generally four stages leading to an established change on our aid and on our line - those stages are: Attempt; Clean; Change Happy; Confirm.

I explained the importance of our pre-requisites - the aid and the timing of

the aid - and outlined how to approach **Stage 1**, your first attempt.

But keep in mind that no matter what stage you're in, the canter itself is crucial. A well-collected, balanced canter is essential for a smooth and accurate flying change. A long, flat, or unbalanced canter will make the change more difficult - so never compromise on the quality of the canter.

And now to **Stage 2: Clean**. This is normally the longest stage because now it's time to change clean. Once your horse understands the task and is attempting to flying change on the aid, the moment has come to insist that the change is performed in one movement, in other words the front and hind legs change in the same moment and on the aid.

It is during this stage that access to a spotter, coach, or a mirror is imperative. A spotter is someone on the ground who can tell you very quickly if the change is clean, early, late in front, or late behind - and depending on whether you have a coach, a mirror, or an experienced spotter, this stage has the potential to take a *long* time to perfect.

There are many variations of what might occur in Stage 2. Most commonly, we have the flying change that is late behind. The horse might also change together behind, change early in front, come croup high through the change, trot through the change, leap through the change, and/or take off through the change. Some horses take longer to learn flying changes than others, and each horse will have their own learning style.

The most common mistake is late behind, where the horse changes their front legs on the aid, and a stride or few strides later, changes behind. The spotter's job is to say 'no' as close as possible to witnessing that the change is late. The rider should then return to walk as quickly and calmly as possible, and either pick up the canter lead they wanted to change into, or return to the old lead and try again.

Coaches have an array of exercises to help riders and horses through this stage, but basically, for the late behind change, the rider should delay the front leg, focusing on just changing the hind legs. We do this by holding the new outside rein to the old side enough to 'block' the front leg, thereby approaching the flying change with the



ABOVE: Nicole trained Florenz up through the levels from Novice to FEI (Images by Christy Baker Photography). **LEFT:** The always expressive Florenz in the arena (Image by Simon Scully Photography).

haunches slightly in to the new side *before* aiding the flying change.

During this stage, we can try riding the change from a counter leg yield, from a counter canter on a circle, from a half pass, from a counter-canter renvers, or just on a diagonal. Another method is using a pole on the ground and attempting a flying change over the pole. Experiment with different approaches to see what works best for your horse - what works for one horse might not work for another.

This stage is difficult because horses anticipate the change and/or resist the rider's attempts to prepare the change, making it harder to get a clean change. Unlike some other movements where there's more room for interpretation, flying changes can provoke a clear yes or no answer, making them more challenging to learn.

Once you have a clean change on both sides, we enter **Stage 3: Change Happy**. This is the stage where your horse knows best, and as you're setting it up, changes before you ask. It's wonderful that they know what to do; but they have to learn to wait. It is important in this stage, that the rider *always* corrects an unasked for change with a very quick and calm transition to walk, returning to the lead they were on. Never flying change back from a dishonest change, because a third change is guaranteed and you will start something that has no end.

During this stage, practise preparing for a change, and then don't. Riders must have the prerogative to change their mind. Practise setting up for more changes than you actually carry through.

Once the horse is waiting and the changes feel close to being confirmed, the real test is trying them on other

lines. And through it all, always work to improve your horse's balance, straightness, thoroughness and collection, because the change is only as good as the canter.

And finally, there's **Stage 4: Confirm**, which is all about making the change better. Once you have a clean flying change on your aid, you can then develop the single change to be more in balance, uphill, straighter and performed with more confidence. Confidence equals expression, and the way to get more volume in the change.

There is no doubt about it, learning the flying change seems like you're at the bottom of Mount Everest. Just keep putting one foot in front of the other and remember, challenges make life interesting, and overcoming them is pretty awesome.

For more information on lessons or a clinic with Nicole, visit [Nicole Tough](https://www.nicoletough.com).



TOP TIPS

Eight tips to soothe your nerves

Many riders are affected by nerves, and in Part 2 of her two-part series, **CHRISTINE ARMISHAW** offers some great tips on keeping anxiety at bay.

In last month's issue, we covered the first four of our eight tips, all designed to help you manage your nerves. The last tip was to do with the importance of controlling your breathing - and because breathing is absolutely critical to calming overexcited butterflies in your tummy, here's another breath related tip:

5. Breathe in to slow down: When I'm coaching an anxious student whose horse is speeding up, I'll ask them what's the first thing they should do

to slow the horse down. The answer is usually something like sit up, or pull on the reins - but no! The first thing to do is take a deep breath, and that's something people forget really easily.

Every downward transition should start with a big breath. For example, you're trotting or cantering and your horse is getting faster and faster. But instead of panicking, you breath in, which, if you're inhaling a full lung-full of air, will take about two to three horse steps. Then

you tuck your tailbone under and sit back as you exhale - and because that deep breath has given you the power you need to tense your muscles much more firmly, you're not just pulling on the reins, you're using your entire body to slow down. And that preparatory breath has also made your horse aware that something is about to happen, and so they're much more likely to listen.

By contrast, when a horse is speeding up and the rider grabs at the reins and leans forward, they're encouraging the horse to go faster - and, in a state of panic, they've probably forgotten all about breathing and won't have the power in their muscles to block the horse and slow down. But here's the thing, you have to practice this when you're in a mentally calm place - first at a walk, then a trot, then a canter - so that it becomes your go-to when it's needed.

6. One rein stops: Well before you start doing anything on your horse, you need to know how to do an emergency one rein stop so that if things begin to go pear shaped, you have a way of dealing with it.

If your horse gets a really big fright and is fixated on whatever has spooked them, taking a big breath and pulling on the reins may not be enough, which is where your emergency stop comes in handy. The one rein stop disengages the horse by bending them to one side. To do this, sit up, pull on let's say the right rein, and bring your right hand far enough back to tuck it behind your right hip so your horse's neck is bent to the right. At the same time nudge with your right heel so your horse is stepping round in tight circles, and then when you let their head go, they should be more relaxed.

If you're doing this effectively, your horse won't be able to buck, bolt or rear, but only if you shut down the spook before it escalates - it won't work if your horse has already bolted. And if you're hopping on a horse you don't know, do a practice one rein stop in both directions. If the horse moves more easily in one direction than the other, that's the side to use in an emergency.

7. Reading your horse: If you understand that your horse's ears, eyes and head posture tell you so much about what they're thinking, then you can actually mitigate issues before they arise. If you're riding along and feeling a bit apprehensive, and you notice your horse is also apprehensive with their ears double pricked towards something in front of them, it's probably not a really safe situation to be in. The trick here is to regain your horse's attention by talking to them or jiggling your inside rein until they once again flick their ears back and forth to you.

And you certainly don't ever want to get on a horse when they're agitated and you don't have their attention, because the likelihood of something going wrong is amplified. Having a head carriage where the eye is level with, or lower than the wither (rather than holding the head up high) is a good indication that they're in a more calm, relaxed space and more focused on you, which is generally a very much safer option.




ABOVE: If their ears are double pricked towards something in front of them, your horse is not likely to be focussed on you. **LEFT:** To keep their attention and focus, talk to your horse so that their inside ear comes back to you.

8. Use the round yard: If I'm coaching a rider with a new horse, or one they don't know that well, or one that they've had a fright with, before they even sit on the horse we begin with a session in the round yard, which is useful for two reasons. Firstly, it enables you to assess what mood your horse is in. Naturally, we'd prefer the horse to be calm, relaxed and probably a bit lazy, so when you get on, you know they're not going to be super reactive, spooky or way too forward. And from the ground, you can easily check this from their head posture, whether their eye is lower than their wither, whether they're flicking their ears back and forth to you, and so on.

Secondly, if they have excess energy, they can burn it off - but don't let them run around in one direction only, change their direction after every two laps. You'll notice that the horse might be quite high and intense to begin with, but they only have so much energy and they will wind down until they're nice and relaxed so that you will then feel good about getting on instead of nervous.

You don't need to have a horse on the lunge in a round yard, but if you don't have access to one, you can always lunge your horse in the arena or paddock, still making sure you change direction every couple of laps. Changing direction is really important. If you let them go around and around in one direction, it's more likely to wind them up then calm them down.

By getting into the round yard routine, you'll be able to check in with your horse before you hop on, as well as dialling down that excess energy. It automatically puts you in a position where you're going to feel so much safer. Before you even put your foot in the stirrup you've already assessed your horse's mood, and you know they're not feeling full of themselves - and that's got to be so much better than just getting on and hoping for the best. 

Christine Armishaw Equestrian offers a variety of coaching and other equestrian services at her [Otford Valley Equestrian Agistment & Training Centre](#).



FEATURE

Of horses and humans

Why is it that horses can help people who are anxious or depressed? Science may not yet have a clear answer, but the effects are profound, writes **AMANDA MAC**.

Speculation abounds when it comes to whether or not horses have a positive effect on the emotional and mental well-being of humans. The concept of equine assisted therapy (EAT) is embraced by some, while rejected as dubious, unscientific woo woo by others.

Nonetheless, a significant number of studies now point to this modality

as having the potential to create a positive impact on people with a range of mental and emotional issues, not to mention the rapidly increasing interest in equine related interventions among those seeking an alternative to formal therapies.

While some of us might feel more comfortable with EAT as a concept if only its how, what, and why could be

more clearly defined and scientifically documented, the fact that something quite astonishing appears to be happening can't for one moment be ignored.

So while this might not be the most satisfying for those yearning for scientific validation, just for the purpose of keeping an open mind, let's go with the 'proof is in the pudding' approach to see whether it might reveal anecdotal evidence that strongly suggests horses are extremely sensitive to their surroundings, have the ability to recognise nonverbal cues, and are also sensitive to human emotions in a way that has the potential to facilitate a variety of therapeutic modalities (follow [this link](#) to learn more).

Jane Faulkner is the founder and director of Equine Assisted Therapy Australia, a registered training organisation specialising in counselling and equine assisted mental health. A long-time

horse lover, she has, among other qualifications, a Masters in Gestalt Psychotherapy, a Bachelor of Nursing, and is certified in Equine Assisted Psychotherapy.

Over the years, Jane had done a lot of work on herself and felt she'd pretty much sorted through her issues. But then, just after completing her Masters, a friend suggested they go and try out an equine therapy session, a relatively new modality at the time. "It just totally blew me away," Jane says, "it got straight to my core issues and I knew I had to learn more."

Learning more equated to training in EAT, which she first practised while working at a retreat catering for high-flying corporate CEOs. "They were really tough clients because they tested you to see if you knew what you were doing, and that helped me hone my skills. Also, I was working with a phenomenal herd of four horses who taught me a lot. Horses track and respond to state shifts in nervous systems, and they'd respond to shifts in clients before I'd even noticed or felt them, which helped me become a more present therapist."

But how are horses able to 'tune in' to human nervous systems with such accuracy? Dr Stephen Porges, the founding director of the Traumatic Stress Research Consortium at Indiana University, uses the term neuroception to refer to the way our nervous systems constantly scan our environment to ascertain whether we're safe. Horses, Jane says, are no different. "They're mammals like us, and their nervous system is wired like ours. They value feeling safe over anything else, and are finely attuned to what's around them. But unlike humans, whose layers of social conditioning often override information from their nervous system, horses respond to a perceived threat in the moment."

When approached by a human whose emotional state doesn't match their outward behaviour, horses will react to the internal state rather than external cues. For example, Jane was working



ABOVE: Learning the ropes - Ben Maguire instructing a group of veterans.
LEFT: Jane Faulkner, founder and director of Equine Assisted Therapy Australia.

with the CEO of a very well-known Australian company. Although sceptical of EAT, he admitted to being concerned with the regularity his staff left his employ.

When Jane walked him into the paddock to meet the horses, all four turned their backs on him. "For someone who obviously wasn't used to dealing with his emotional baggage, this sent such a clear message," Jane says. "He realised the horses were reacting to him in much the same way his staff did. Then he told me he found it difficult to reach people, had a lot of self-hatred, and was very hard on himself." Jane helped him to acknowledge his value as a person rather than simply as a CEO. As he recognised he had innate value and began softening towards himself, the horses turned back to face him, now prepared to be in relationship with him. "That was huge," Jane adds, "to see so much change in him in one session."

That's the kind of shift Jane has witnessed many times over. And there's something else she's observed that's just as astonishing. "Horses will specialise," she says. "In a herd of horses, one might step forward when the client is grieving, and another when the issue is anxiety, and yet another when it's about bullying and power."

This was particularly evident when a horse who regularly responded to people experiencing grief, walked over to a client standing at the paddock gate. The woman was smiling and apparently happy, but realising the horse had sensed another emotion, Jane asked her whether she was grieving. The woman explained she'd recently lost her brother to suicide and began to sob. "The horse stepped forward and kind of held space for her. So, yeah, it's quite phenomenal to see them working like that."



LEFT: Horses are finely attuned to what's around them (Image courtesy Equine Assisted Therapy Australia).

RIGHT: Remount horsemanship programs include riding, leather work and mustering (Image courtesy Remount).

In our [February 2024](#) issue, we featured a story on Horse Aid, the charitable organisation offering ex-servicemen and women help in overcoming PTSD through participating in groundwork with horses. Meanwhile Remount, a similarly focussed charity located just outside Yass in south west NSW, provides horsemanship programs for veterans that include riding, leather work and mustering.

Remount is operated by Ben Maguire AM and his wife Marina Maguire OAM. Back in 2012, the couple were managing The Stockman's Hall of Fame in Longreach, and ran a camp draft where they met John Mayer, a visiting US Marine Corps Colonel and the then Commanding Officer of the Wounded Warrior Regiment. John, who had long believed the best way to help people with PTSD was to put them on horseback, had attended the muster with a group of veterans – and it was a revelation to Ben. "I saw for the first time what being around horses can do for people who have mental stress or ill health in their life," he says.

When Ben and Marina returned home to the Yass Valley, they bought a farm and inspired by what they had seen, decided to offer horsemanship programs

to veterans. "We started in 2016, and in nine years we've hosted over 500 veterans from all over Australia," Ben says. "They come and learn the language of the horse, and it has a profound impact on almost all of them."

While the Remount team are not trained equine therapists, they have the deepest respect for formal therapists and clinicians. But as Ben explains, the service they offer lies somewhere in between the two. "We provide a space for veterans who want to explore options other than therapy," he says.

Ben's belief in the ability of horses to help people is based on his many years of working with veterans and horses. "I think it's to do with the fact that horses are non-judgemental, and that as the oldest surviving grazing herd animal on the planet, they've developed very strong instincts. I have seen horses interact with people who are anxious or sad or stressed, and do incredible things in the protection of those individuals."

Like Jane, there are dozens of stories Ben could share, about Remount participants who were no longer having suicidal thoughts, had improved marriages, had quit drinking, come off all medication, embarked on new careers, or who were just feeling

happier - but there's one standout. "A veteran came to us who literally could not talk. He was a nervous wreck and was living on the street. At the end of the first day, we turned the horses out into the paddock and all of them raced off. But the horse he'd ridden suddenly stopped, trotted back to him and put his head on his shoulder," Ben tells me. "The next morning this fellow turned up for breakfast, after just about skipping down from his accommodation, and was patting people on the back."

Obviously, something quite profound had occurred; a very special interaction with a horse that had helped to facilitate a more grounded state, creating space for the brain's 'happiness trio' – dopamine, serotonin and oxytocin – to bring back forgotten feelings of calm and connectedness. "The bottom line is," Ben says, "that if you hand somebody a lead rope and introduce them to one of these animals, they will have a better life because of it." 🐾

To find out more about the work of these two charities, visit [Equine Assisted Therapy Australia](#), and [Remount](#). - and if this article has raised issues for you, contact [Lifeline](#) on 13 11 14, or [Beyond Blue](#) on 1300 22 4636 (both services are 24/7).



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VET VIBES

Behind the scenes in intensive care

The scope and nature of the care offered by an equine intensive care unit is extensive. **Dr SARAH GOUGH** takes you behind the scenes.

Being admitted to the intensive care unit (ICU) is not a situation that any of us want our horses to be in. However, as with people, treatment in the ICU can be lifesaving.

Equine ICUs are specialised barns, stable blocks or isolation units, serviced by specially trained veterinarians and veterinary nurses who facilitate around the clock monitoring and treatment of critically ill or injured horses. While

not all sick or injured horses require the level of care provided in an ICU, the lives of those whose condition may change in a matter of minutes or hours may depend upon the level of monitoring, diagnostic capabilities and medical or surgical interventions that an ICU offers

What is intensive care?

Intensive care is specialised treatment and monitoring, tailored to the

individual needs of a patient. Admission to the ICU, rather than general hospital admission, is necessary for patients requiring increased frequency of treatment and monitoring, and more specialised care. While there are many facilities that enable a patient to be hospitalised overnight, the around the clock care provided in an ICU is not always feasible due to the requirement for increased numbers of specially trained staff, the availability of specialised equipment such as fluid pumps, nebulisers, oxygen tanks and foal crates for critically ill neonates, and the huge costs associated with the provision of this level of care.

On admission to the ICU, a patient typically undergoes a range of diagnostic and laboratory tests to further evaluate the extent of injuries or degree of medical compromise, and any associated complications that may influence treatment. An individual monitoring plan is developed based on this information. This ensures that the frequency of monitoring of vital signs, blood parameters and associated factors

such as blood loss or degree of pain and discomfort, is appropriate for the degree of compromise to the patient. Alongside the monitoring, the relevant treatments that may be necessary are charted with appropriate regularity.

The frequency of treatment and monitoring can range from continuous, such as for severely compromised neonatal foals requiring ventilation; through to hourly, two hourly and up to six hourly, depending on the expected dynamic nature of the patient's condition.

A vast array of treatments may be implemented in the ICU. These range in complexity from dressing and bandage changes, through to maintenance and use of indwelling epidural catheters for continuous administration of analgesia to the hindlimbs or perineum, and even ventilation. The treatment and monitoring of patients in the ICU is performed by highly skilled and specially trained personnel under the supervision and guidance of a specially trained veterinarian.

Examples of diagnostic tools that may be used in the workup and ongoing monitoring of an ICU patient include:

- Ultrasound
- Radiography (X-ray)
- Endoscopy ('scope')
- Blood analysis
- Body fluid collection
- Culture and bacterial susceptibility testing
- Computed Tomography (CT)
- Magnetic Resonance Imaging (MRI)

Cost of ICU treatment

Unfortunately, treatment in an ICU often comes at a high cost to the owner. These costs are attributed to the overheads associated with building and staffing a veterinary facility with specially trained professionals available 24 hours a day, seven days a week; acquiring and maintaining complex medical equipment; stocking and administering medications and the associated consumables, all without the assistance of any form of government funding. Programs such

TREATMENT	PURPOSE
Intravenous fluid therapy	To provide fluid support via an indwelling venous catheter in patients who are unable or unwilling to maintain their own hydration
Continuous intravenous medication infusion	To provide a continuous intravenous infusion of medications at a specified rate for the patient, such as infusion of insulin at a constant rate or infusion of analgesia at a set rate
Continuous oxygen therapy	To provide oxygen support for patients who have respiratory compromise, such as some critically ill neonatal foals
Digital cryotherapy	Icing of lower limbs to reduce the development of laminitis in horses who are at high risk or are showing early signs of laminitis
Epidural medications	This is an advanced technique to provide pain relief to the hindlimbs or perineal region via an indwelling epidural catheter
Antibiotic administration	To provide the appropriate concentration of antibiotic at the site of infection (such as via a nebuliser, into a joint, or via a regional infusion) for the desired duration of time to provide the optimum effect.
Cavity drains	Drains to facilitate removal of excess fluid build-up and inflammatory products in cases of infection, such as drains placed in the chest or abdomen
Casts	To facilitate immobilisation and support to an area of injury such as fracture or wound

Table 1: Examples of treatments that may be implemented in an ICU for critically ill patients.

as Medicare and the PBS dramatically reduce the cost of human medical treatment and hospitalisation, so much so that the average person contributes just 15% towards their medical costs. In contrast, owners are required to pay for 100% of their horse's veterinary fees.

Medications that have a crossover between human and veterinary sectors, and more specifically equine use, are typically cheaper due to the competitive nature of human pharmaceuticals. However, medical supplies made solely for the veterinary profession do not have the same competitive advantage that drive prices down and are therefore often considerably more expensive. Due to the size of horses, the medications are often specific to large animals, which diminishes the potential for crossover and lessens the competitive advantage that can be gleaned from the human pharmaceutical industry.

Likewise, the around the clock nature of intensive care leads to a high cost in personnel wages that has to be

reflected in the patient care fees. In return for the considerable cost of care and treatment, the aspect that should never be overlooked is that your horse is benefiting from the significant empathy and hard work that ICU staff put into their patients, not to mention the knowledge, many, many years of study and the experience that ICU veterinarians bring to bear.

Decision making in the ICU

As with any patient – equine or human – critical illness and injury can lead to varying degrees of recovery, and in some cases, recovery is not possible. As such, we as owners and veterinarians do sometimes need to make difficult decisions for our equine ICU patients.

The response to stabilising treatment over the initial 24-72 hours is often an important indicator of overall prognosis for recovery (of course this specific time frame depends on the initial illness or injury). However, it may take weeks or even months to determine long-term prognosis for recovery, whether that is recovery to paddock soundness,

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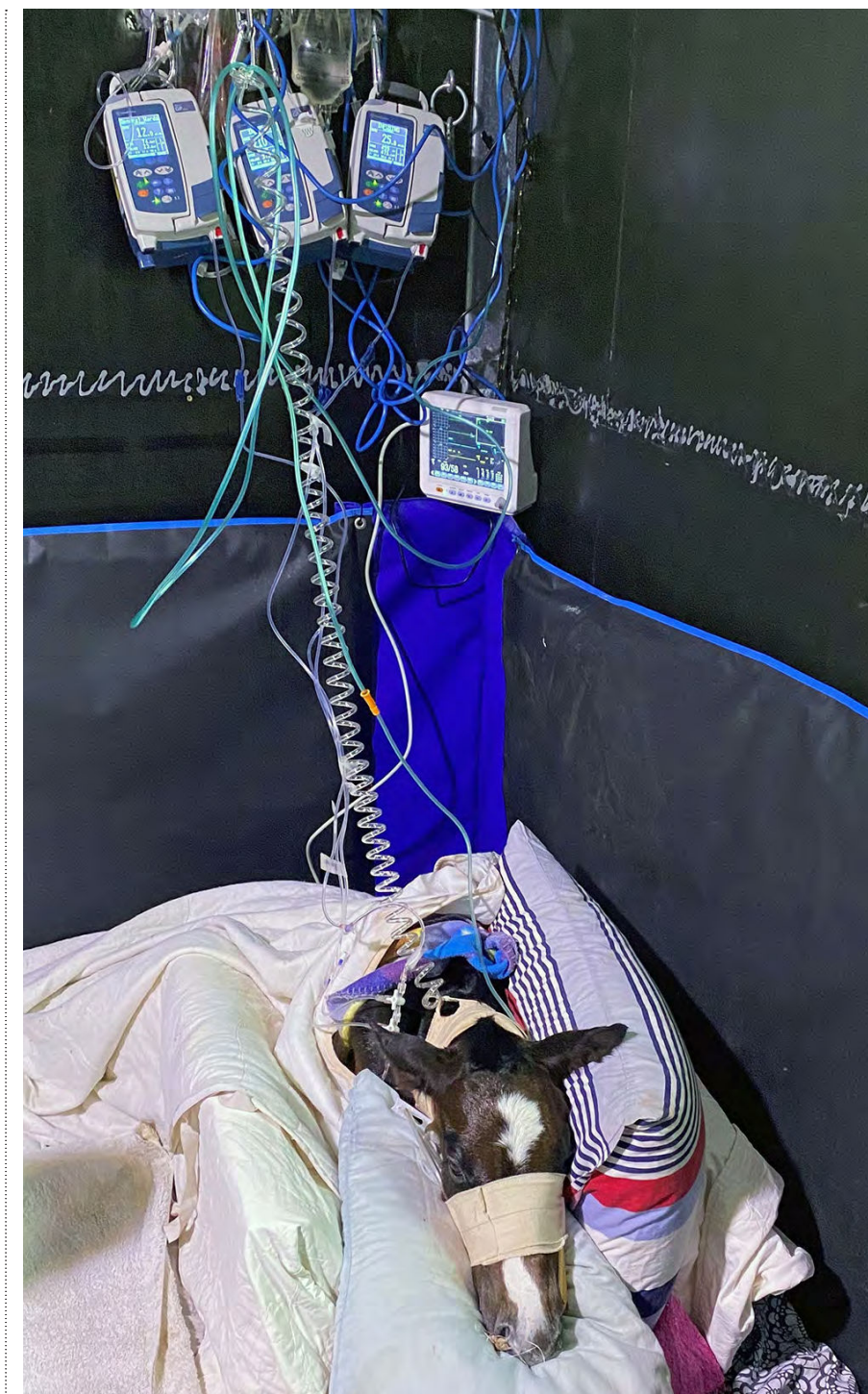
recovery to an athletic capacity below that of pre-illness/injury, or complete recovery with no restriction on athletic capacity.

During this journey it is likely that there will be ongoing diagnostic tests, whether that is in the form of follow up ultrasound, radiographs, repeat laboratory testing (blood tests, body fluid cultures), or even referral to a rehabilitation centre for ongoing treatment.

While we all want to do the very best for our equine companions, it is also important that the decisions we make are for the right reasons and are being made within the constraints of our individual circumstances. Despite the best care available and the hard work and dedication of specialist teams, we are not able to save every patient.

Unfortunately, some disease processes are irreversible or the complications that arise during treatment leave the patient irreparably compromised. I have frequently had conversations with owners who are making difficult decisions on their beloved companions (horses who are family to them), and the decision to say goodbye is often the most difficult. However, if recovery is not an option, alleviation of suffering is the kindest thing that we can do.

Owners are often uncomfortable about their decisions being influenced by cost. However, until money grows on trees it is inevitable that financial circumstances need to be considered when making decisions on costly treatments. Having open conversations with your veterinarian about your financial position should always be encouraged – in some circumstances there is a less expensive option that may not be the 'gold standard', but represents an appropriate middle ground. Likewise, while it can be an extremely difficult decision to make, if the cost of treatment is unachievable for an individual and a lesser treatment is not going to be effective, then euthanasia may be an appropriate option.



ABOVE: A compromised neonatal foal in the ICU receiving intravenous fluid therapy, caloric support, cardiac support, oxygen therapy, nasogastric tube feeding and regular blood pressure monitoring.

Thankfully, with the ongoing advancement of our medical knowledge, facilities and therapies, positive outcomes for ICU patients continue to increase. The availability of advanced imaging, blood and genetic testing, and an ever-increasing arsenal of medications has resulted in the ability to prolong the life of many more horses than even 15 years ago - and in this space, our ability

to intervene with novel medical and surgical techniques to save our patients and preserve their athletic capabilities continues to improve exponentially. 🐾

Dr Sarah Gough is a European and Australian specialist in equine Internal medicine, and can be found at the [Apiam Hunter Equine Centre](#) in Scone, New South Wales.



FEATURE

Developmental bone diseases: the risk factors

Recent advances have added to our understanding of developmental bone diseases. **DR JENNIFER STEWART** updates us on what we now know.

Most of us choose to avoid anything described as skeletal abnormalities in our horses – especially when they are young and growing.

The term Developmental Orthopaedic Disease (DOD) is used to describe

any orthopaedic (ie musculoskeletal) problem that involves tendon, joint, or bone tissue in growing horses. It was coined by the American Quarter Horse Association in 1986 when more and more young horses were developing growth issues. Today, across all breeds,

the incidence of DOD is 10–65% and varies according to the number of risk factors.

Included under the umbrella of DOD (see Table 1) are flexural limb deformities caused by contracted tendons; epiphysitis; physitis; Wobbler syndrome, or cervical vertebral malformation (CVM); and osteochondritis (OC). Common to all these conditions is a failure of the blood supply to the cartilage growing in the developing skeleton. It is generally accepted that these conditions can be congenital (present at birth) or acquired (developing after birth).

There are basically two forms of Osteochondritis dessicans (OCD): one is caused by defective cartilage maturation, the other is due to the mechanical overloading of normal cartilage. But for all types of DOD the causes are complex, multifaceted and comprise a combination of genetic

predispositions, nutritional risk factors correlated with rapid growth, diet imbalances, exercise (biomechanical stress or trauma on immature joints and cartilage), and hormonal factors.

Genetics

It had been recognised by breeders that DOD seems to be more common in some breeds and bloodlines. Most breeds are susceptible although ponies and wild, free-ranging horses are less so, with an incidence in the latter of around 2%.

The prevalence and heritability vary between breeds and between joints. X-ray surveys found fetlock OC in 7–15% of Warmbloods and Thoroughbreds, 32% in French trotters and 54% in South German Coldbloods. Hock OC was found in 5–10% of Warmbloods and Thoroughbreds, 17–23% of Standardbreds, and 40% of South German Coldbloods; and stifle OCD reached prevalences of 4–10% in Thoroughbreds and Warmbloods. Several recent studies have estimated heritability for fetlock, hock and stifle lesions in different breeds (Table 2).

With the completion of the horse whole genome sequencing project, several genes have been found that are associated with DOD and are linked to genes that relate to size. Breeding pressure often favours certain conformational traits - the height at the withers and high growth rate, for example - that are highly valued and known to be associated with the development of OC.

Nutritional risk factors

In the 1980s, an increase in the occurrence of foals with DOD coincided with the widespread introduction of supplementary feeding for broodmares and foals, which was precipitated by research showing that the nutrient levels in mares' milk declined during lactation and that feeding concentrates increased foal growth rates. Subsequent research in 1989 demonstrated that

Developmental Conditions	Definition/Synonyms
Flexural limb deformity (FLD)	Contracted tendon, club foot
Epiphysitis/Physitis	Enlarged growth plates
Angular limb deformity (ALD)	Bent legs, limb deviation, windswept foals
Osteochondrosis (OC)	Disturbed cartilage development
Tarsal bone collapse	Crushing of the soft bones in the hock
Cervical vertebral malformation (CVM)	Wobbler malformed vertebrae
Osteochonditis dessicans (OCD)	Joint and cartilage disease

Table 1: Developmental conditions that come under the Developmental Orthopaedic Disease umbrella.

skeletal abnormalities were higher in growing horses fed dietary energy at 129% of recommendations. The relationship between dietary energy and growth rate is analogous to fuel supply and speed in a car. When more fuel (energy from the diet) is available, speed (growth) will increase - but there is no brake on growth, and like maximum speed, maximum growth may

not be optimal. Foals with a genetic predisposition for rapid muscle development may develop greater muscle mass than their immature bones and joints can support. Those without the genetic potential for rapid musculoskeletal growth can quickly become fat if overfed and this can overload the immature, developing joints.

Breed	OCD site	Heritability estimate	Genetic differences	Environmental influences
Dutch Warmblood	Fetlock, hock, stifle	0.17	17%	83%
German Warmblood	Fetlock, hock	0.07	7%	93%
Holsteiner mares	Hock	0.34	34%	66%
Holsteiner foals	Hock	0.19	19%	81%
Hanovarian	Fetlock, hock	0.20	20%	80%
Swedish Warmblood	Fetlock, hock, stifle	0.25	25%	75%
Australian Thoroughbred	Fetlock, hock, stifle	0.10	10%	90%

Table 2. Heritability of OCD



ABOVE: In the 1980s, an increase in the occurrence of foals with DOD coincided with the widespread introduction of supplementary feeding for broodmares and foals.

Young horses do not grow steadily in height and weight. Bone and muscle have their own windows of growth. The three most rapid growth periods for bone are:

- from four months before, until one month after birth
- between six to 12 months of age
- just after puberty.

For muscles, the most rapid growth in terms of muscle cell size and number occurs between two and 24 months of age (Figure 1).

There is a link between above average weight gains and the onset of bone diseases. Muscle growth should not be pushed forward while the bones and joints are vulnerable. A lighter, leaner weanling with appropriate height (remember height is an indication of bone growth, not muscle) is the ideal.

The risk for skeletal abnormalities is highest during periods of rapid growth and early this century, this

was determined to be the major factor causing DOD. More recently, records have shown that Warmblood foals positive for stifle OC had a significantly higher rate of weight gain at three and

“ A balanced diet with the correct amount and ratio of minerals, essential amino acids and energy will assist in preventing lesions that result from defective cartilage formation. ”

five months of age, weighed more at 11 months, and were taller at the withers and croup. Lusitano yearlings with DOD had higher daily body weight gains from six to 18 months of age. This and other recent studies have revealed that all breeds and ages of horses positive for OC had higher blood glucose and insulin levels.

Diet imbalances

A balanced diet with the correct amount and ratio of minerals, essential amino acids and energy will assist in preventing lesions that result from defective cartilage formation. The incidence of OCD is much higher in horses fed unbalanced diets than those on a balanced nutrient intake. In the biomechanical induced forms of OCD and in foals with a genetic potential for rapid growth, correct dietary management will assist in regulating growth and preventing excess condition.

Exercise

In the 1970s, Dr Roy Pool found that many cases of OCD are likely the result of excessive biomechanical force on the developing cartilage. These forces disrupt the blood supply to the cartilage and prevent its conversion to bone. Possible reasons why the cartilage does not withstand these forces include conformation defects which can lead to uneven and abnormal

loading of the joint surface. Another reason lies with foals who have had their exercise restricted due to illness, and consequently have reduced bone density. When returned to pasture, the bone is not strong enough to support a normal amount of exercise, the joint cartilage collapses, and the sudden changes in exercise patterns can lead to fatigue and joint overload.

Hormonal

Over 40 years ago studies examining the effect of different feeds on blood glucose and insulin in horses appeared - and throughout this century the role of insulin in DOD has been explored. The consistent finding is that although the amount of energy (calories) fed to mares and foals is important, the source of that energy is even more so because raised blood glucose and insulin are implicated in the pathogenesis of osteochondrosis.

Insulin has a profound effect on blood vessels and those in the developing bones and joints are especially susceptible. Insulin also influences the thyroid hormone, which impacts cartilage integrity and growth, and can result in faulty mineralisation. In addition, feeding pregnant mares high starch/sugar feeds increases insulin resistance, low-grade inflammation, and osteochondrosis lesions in foals and yearlings until 18 months of age. Both starch and sugar increase blood glucose and insulin levels, and low starch/sugar feeds are recommended for pregnant mares, foals, weanlings and yearlings.

So, what is 'low' starch and how much starch is too much? Research published in the last two years has found that in normal healthy horses, insulin rises dramatically when starch intake reaches 0.3g/kg body weight per meal. Importantly, insulin-dysregulated horses are nine times more sensitive to non-structural carbohydrate (NSC) and a limit to starch intake of between 0.02

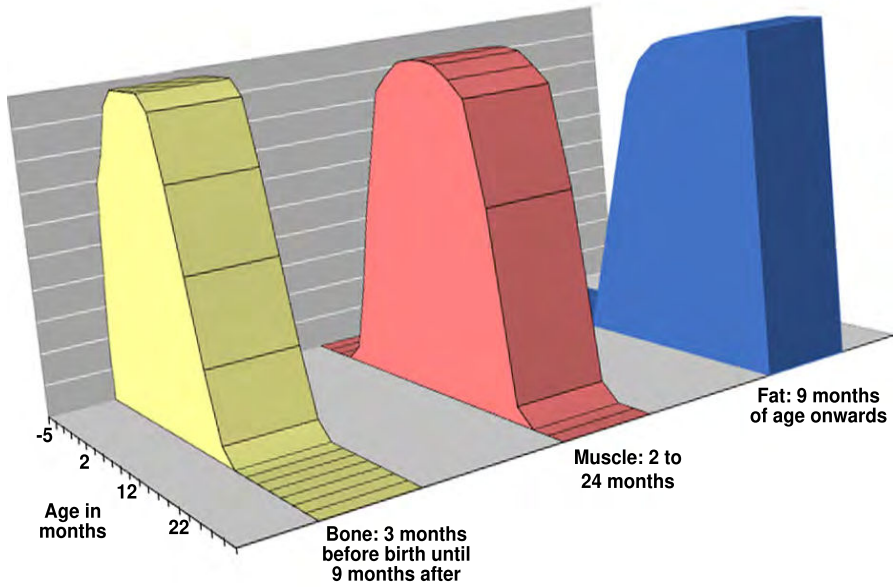


Figure 1: Major periods of bone, muscle and fat growth.

and 0.05g/kg body weight per meal has been proposed.

For example, if a feed is 15% starch, a 500kg normal healthy horse could eat around 1kg per meal without adversely affecting blood glucose and insulin levels. However, for insulin-sensitive or insulin dysregulated horses, the amount of a 15% starch feed that could be safely consumed would be between 65g and 150g.

“ Foals with a genetic predisposition for rapid skeletal and muscle development may develop greater muscle mass than the rapidly growing bone can support. ”

Take the time to read feed labels and do the maths, or have the diet analysed for starch, or have your vet check insulin levels.

The exact causes of each type of DOD are unknown, but in all cases disturbance in the maturation of the joint cartilage and weakening of the bone is associated with high energy

intakes, traumatic injuries and a genetic predisposition - it's a case of genetics loading the gun (25% risk) and the environment pulling the trigger (75% risk).

When you search Google Scholar, there are articles dating much further back than the 1986 introduction of the term developmental orthopaedic disease. With the mapping of the equine genome and advanced imaging techniques it is now possible to study in minute detail the influences on the tiny blood vessels growing with and providing nutrition to the developing cartilage. As studies progress, we will learn even more about how to protect the young skeleton – but in the meantime, we can apply the existing knowledge to avoid feeding and dietary mistakes, and to protect developing joints from the damaging effects of elevated insulin.

Dr Jennifer Stewart BVSc BSc PhD is an equine veterinarian, a member of the Australian Veterinary Association and Equine Veterinarians Australia, CEO of [Jenquine](#) and a consultant nutritionist in Equine Clinical Nutrition.

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ABOVE: At the end of the Adelaide 5* dressage phase, Hazel and Clifford were in 2nd place with a score of 30.3.
LEFT: Clifford, the horse who loves to jump (Images by Michelle Terlato Photography).

LIFE AFTER RACING

Rewriting the record books

There have been some history-making eventing wins this year, including Hazel Shannon and WillingaPark Clifford's outstanding Adelaide result, writes **AMANDA MAC**.

So far, it's been the year for eventing record books to be rewritten, and at quite a fast clip. In April, Germany's Michael Jung secured an astonishing fifth win at Kentucky with FischerChipmunk FRH, when the pair took out the CCI5*-L Defender Kentucky Three-Day Event,

helped along by a record-breaking dressage score of 18.6.

Then Britain's Ros Canter and Lordships Graffalo became the first combination ever to regain a Badminton title in non-consecutive years, first winning in 2023 and then again last month. Also in May, Australia's own Hazel Shannon and

19-year-old off the track WillingaPark Clifford chalked up a historic result at the Adelaide Equestrian Festival, becoming the only combination ever to win the Adelaide 5* four times - in 2016, 2018, 2019 and 2025 - a record that will no doubt stand for some years to come.

'Meant to be' springs to mind when contemplating Hazel and WillingaPark Clifford's partnership. Retired racehorse Clifford (Sidespin) was bred in Tasmania by Sue Devereux and after a brief, lacklustre track career, Sue came to the conclusion that although the horse had an excellent temperament, he simply wasn't interested in going fast. So she gave him to her sister Wendy Ward, who lived in Heatherbrae, NSW with her partner Allen Jennings, on a property next door to equestrian stars Heath and Rozzie Ryan.

Meanwhile, born into a family of horse lovers, Hazel grew up in Mutchilba, a tiny inland town north of Cairns in Far North

Queensland. "My mum is English and was interested in English riding, but my dad and brother were into camp drafting and Stock Horses," Hazel says, which goes a long way to explaining why her early riding career was eclectic. There was a local Pony Club, but due to the remoteness of the area, interest in state championships and the like was virtually non-existent. "It was more just the local kids socialising and having fun," she recalls. "It was really nice."

But the love of horses goes well beyond Hazel's immediate family and it was Lynn, one of her aunts, who told her about the availability of working pupil positions at yards around the country. Deciding this option appealed more than leaving school and going straight on to university, Hazel took a gap year and, synchronistically, was lucky enough to become a working pupil at the Ryan's Newcastle Equestrian Centre.

Hazel's 'gap' morphed into 11 years, during which she settled on eventing as her sport of choice, and started working with Clifford, who at the time was essentially a riding school horse. "We got on really well, and Heath, Rozzie and Wendy were happy to leave me as his jockey," she says.

And that was the start of what is now their 15-year partnership – but it wasn't without its twists and what turned out to be a few fairy tale turns.

Initially, Clifford wasn't a natural, although his heart and reliability have turned this otherwise unremarkable 16hh chestnut Thoroughbred into a history-making eventing superstar. "He's faster than he was and very motivated by jumping and eventing, but I think that took a little bit to come out in him," Hazel says.

In 2015, Clifford and Hazel represented Australia at the Oceania Championships,

and in 2016, won the CIC3* in Goulburn, Tamworth and at Camden Equestriad, topping off the year by winning the Australian International 3DE Adelaide CCI4* for the first time [Editor's Note: In 2019, the event was upgraded to CCI5*, a status which was applied retrospectively]. Clifford was also named Eventing NSW Horse of the Year and Australian Domestic Horse of the Year.

However, in the background of their 2016 success was a tragedy. Wendy and her partner Allen, who co-owned Clifford, were very invested in the horse's career. "They were happy to go on that journey, and for Clifford to remain with me. And so he was very much my special horse," Hazel recalls. But just before the Adelaide International, Allen suddenly and unexpectedly passed away, making Clifford and Hazel's win a bitter sweet victory for both Wendy, Hazel and their families.

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Following Allen's passing, Wendy could no longer afford to keep Clifford. The horse was put up for sale, potentially signalling the end of a long-standing partnership between horse and rider. However, Heath Ryan orchestrated a meeting between Terry Snow, the founder and then owner of Willinga Park, and Hazel. "Terry was quick to agree to help me out and buy Clifford so I could keep riding him. It was a very Terry thing to do. He was really supportive of Australian sport, and very generous with causes he believed in. He was a lovely man."

Now under the ownership of Terry and Ginette Snow, Clifford became WillingaPark Clifford, and Hazel and her heart horse went on to achieve international success, competing in seven CCI5*-L events, including the Kentucky Three-Day Event and Pau CCI5*, and in 2022 they competed at the World Championship in Pratoni del Vivaro, Italy.

And while they were on home soil, the pair certainly weren't resting on their laurels. They won at Adelaide in 2018 and 2019, making Clifford the only horse in history to have won that particular 5* three times, earning him a place among an elite group of horse from around the world who have each won the same 5* event three times.

Very sadly, in August 2024, Terry Snow passed away, and typical of the Snow family's generosity, Hazel was gifted Clifford. "For the first time in 15 years, I own him," Hazel says. It was so kind of the family, and winning Adelaide again is like the cherry on the cake of this whole journey. With so many people who have been instrumental in our partnership, it feels kind of poetic."

Clifford does of course, have quirks. He's not a fan of the spotlight, and would rather just get on with the job. "He's a real athlete," Hazel remarks, "but it's easy not to take him seriously because of his quiet, laid back nature."



ABOVE: Hazel and Clifford, hot on the heels of Shane Rose and The Bandit who had moved into 1st place after the Adelaide 5* cross country (Image by Michelle Teriato Photography).

That was especially so in the beginning, but his hotness and drive came out as his training progressed, and he understood what he was doing. He's a quiet achiever and he's super obliging and consistent with everything he does."

When it comes to future plans, Hazel will work those out with Clifford. "I guess I'm waiting for him to be ready

to retire. I think it'd be almost cruel to retire him early, because he loves doing what he's doing and he absolutely hates sitting in the paddock. So he's not going to want to be a retiree anytime soon, and I'm just going to let Clifford take the lead with that."

And that sounds like the perfect choice for this outstanding partnership.



NUTRITION

Keeping your horse healthy in winter

Although the colder months are never much fun, there are ways to keep your horse happy and healthy in winter, as **DR CLARISSA BROWN-DOUGLAS** explains.

The winter months are rapidly advancing, bringing with them a lack of pasture, thick winter coats, and higher feed bills. While horse owners might dread the cold and extra work, most horses take winter in their stride.

Still, the colder months bring unique feeding challenges, especially for older horses, or those with health concerns. While healthy adult horses with winter

coats and full bellies generally manage well in the cold, all horses benefit from careful attention to their nutrition and daily care.

Water: a top winter priority

Water intake is critical in winter - even when horses aren't sweating from work. Reduced water consumption during cold weather increases the risk of impaction colic due to dry feed and decreased gut motility. Forage fermentation requires

a lot of water, which is why the large colon and cecum are referred to as fermentation vats. Insufficient water intake forces the body to borrow water from the hindgut, which subsequently hinders the fermentation process and puts horses at risk of impaction colic.

Here are key tips to encourage hydration:

- Always provide clean, fresh water that isn't too cold. Horses may drink cold water, but they tend to consume more if it's slightly warmed - ideally between 4°C and 15°C. Keep in mind that horses require approximately 20-55 litres of water per day. In areas that freeze overnight, a trough heater may be needed.
- Soak feeds, such as pelleted or extruded feeds or hay cubes in water before feeding, or add soaked beet pulp or soy hulls to provide additional hydration
- Provide a high-fibre diet. Water intake is linked to fibre consumption

with higher forage intake stimulating greater water intake;

- Ensure adequate salt is fed to stimulate thirst – all horses require 5-10g/100kg of body weight per day, and more if they're sweating. A plain white salt lick in the paddock or shelter, or adding salt to daily feed is wise.

The horse's natural heater

A horse's primary source of body heat in winter comes from the fermentation of fibre in the hindgut. That makes a steady supply of roughage - hay, pasture, or chaff - essential.

Even if there's still some grass in the paddock, most horses rely heavily on supplemental fibre in the winter. The amount and type of forage depends on the horse's size, metabolism, workload, and condition:

- As a baseline, feed a minimum of 1.5% of the horse's body weight in hay or other fibre source per day – about 8 kg for a 500 kg horse.
- Overweight, or good doing horses do well on low sugar, stinky grass hay.
- Horses in work may need good-quality grass hay with more leafy content.
- Senior horses, under-weight horses, or those recovering from illness often benefit from a grass-legume mix or the addition of lucerne hay on top of premium quality grass hay for added calories and nutrition.
- Hay is in short supply in many areas of Australia due to drought and extreme weather conditions, so don't leave sourcing winter hay until the last minute! Due to a lack of supply, hay is costly this winter, but is still the most cost-effective form of fibre you can offer your horse. Alternative fibre sources include hay cubes, chaff, beet pulp, soy hulls, lupin hulls, bagged fibre blends, and even straw for good doing horses.

If your horse is shivering, or consistently finishing all their hay, it may be time to



ABOVE: The winter cold often requires the addition of a concentrated feed.
LEFT: It's important to take your horse's rugs off regularly to check for ribs and overall fat coverage. Body condition scoring every few weeks is key.

increase their offering. Ultimately, we recommend ad lib hay so that they are never without. Preventing wastage and slowing intake can be achieved using a hay net or hay feeder.

Also, examine any uneaten hay. Horses may reject hay that's mouldy or contains weeds, not because they're overfed. In such cases, upgrading your hay quality is essential. Furthermore, keep hay protected from the weather – either provide hay in the horse's shelter, or use a covered hay feeder to reduce spoiling and wastage in wet weather. Wet hay is unappetising, and soggy hay can grow mould relatively quickly.

In paddocks, make sure lower-ranking horses aren't being pushed away from round bales, or hay feeders. Spread out hay widely and offer extra hay nets to ensure everyone gets access. Some timid or older horses may need to be fed separately to avoid competition.

Keeping warm burns calories

The winter cold often requires the addition of a concentrated feed to

compensate for the loss of pasture nutrients and to supply extra calories to maintain weight. It is important to take rugs off regularly and run your hands over your horse to check for ribs and overall fat coverage. Body condition scoring every few weeks is key, especially since thick coats can mask weight loss.

Choose a fortified muesli or pelleted feed that suits your horse's age, condition, and activity level. There are myriad feed choices on the market and selecting the best feed can be overwhelming - we highly recommend engaging an equine nutritionist to ensure your feed selection is optimal for your horse. However, some suggested offerings to provide additional calories during the winter months might include:

- Feeds containing super fibres such as beet pulp or soy hulls which are easy to digest and provide both digestible fibre and energy.
- Added fat sources like vegetable oil, or stabilised rice bran to supply easy



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ABOVE: Whether it's a stable, shed, windbreak, or tree line, all horses need protection from wind and wet weather.

to digest calories without adding significant volume to meals.

- Cereal grains are high in calories which can help maintain body condition. Look for cooked or processed grains to optimise digestion.
- For senior or underweight horses, look for feeds specifically formulated to support digestion and condition in older age.
- If your horse is overweight, a low intake vitamin and mineral balancer will provide essential nutrients without excess calories.

Additional considerations

To support your horse's health through the cold season, consider the following:

- Shelter is essential: Whether it's a stable, shed, windbreak, or tree line, all horses need protection from wind and wet weather. As with hay, ensure low-ranking or older horses aren't blocked from the shelter by more dominant herd mates. If your horse is clipped, then additional rugging will be required.
- Dental care is particularly important

for senior horses. Poor dentition can prevent proper chewing and digestion of fibrous feeds.

- Maintain regular faecal egg counts and deworm as recommended to ensure nutrient absorption isn't compromised by parasites.
- Keep an eye on horses with equine metabolic syndrome (EMS) or those prone to laminitis. During the cold winter months, the potential for winter laminitis can be problematic for horses with endocrine problems. While little research has been done on winter laminitis, some scientists suggest that horses with insulin dysregulation or metabolic syndrome have an increased risk of developing this condition due to the physiology of the foot. During cold weather, the shunts between the arterial and venous blood vessels in the foot contract abnormally, decreasing blood supply and resulting in extreme pain. This would not be expected in healthy horses with normal sensitivity to insulin. In healthy horses, the blood vessels dilate to maintain circulation to the sensitive lamellae in the foot. As

with all health concerns, contact your veterinarian for more information.

- Perform daily checks: check rug fit, feel for body condition, inspect for injuries, check for skin conditions, and monitor general demeanour.
- Watch manure consistency: Very dry droppings may be an early sign of dehydration.

Final thoughts

Winter feeding doesn't have to be overwhelming or overly complicated, although the change of season doesn't mean set and forget. With good planning and attention to each horse's individual needs, including lots and lots of fibre, shelter, regular body checks, and warmth - especially for our dear seniors - you can ensure your horses stay healthy, hydrated, and well-conditioned while we wait for spring to come. 🐾

For a tailored diet analysis or advice on optimising nutrition for bone health, contact Kentucky Equine Research at advice@ker.com, and for information on all topics related to equine nutrition visit [Equineews™](http://Equineews.com).



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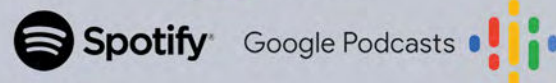


We speak to Will Matthew



Will Matthew owns and operates Bellaroo Equestrian, a show jumping stable providing a range of equestrian services. From breakers to Grand Prix horses, Will believes in bringing out the best in his horses through a methodical and ethical approach. He has a wealth of knowledge to pass on to others, and has taught show jumping, dressage and eventing to riders of all ages and levels.

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WHAT WE'RE LOVING

Puffer perfect

You have your long sleeve base layer, now top it off with a puffer vest and you're good to go.



[Pink Floral / Tri Coloured Puffer Vest](#)

Relaxed and feminine, the **Pink Floral/Tri Coloured Puffer Vest** is double sided. So depending on what you are wearing, you can switch between these pretty pastels to a playful leaf and floral print, giving you two garments for the price of one. Small accessories can be stored in zip pockets on either side of the vest, while the lightweight material offers cosy comfort while being unobtrusive enough not to get in the way while you ride

The **Samshield Alta Badia Puffer Vest** fuses fashion-forward style with practicality. Exuding contemporary elegance, the jacket has a sleek, tailored fit with removable hood. Crafted with meticulous attention to detail, the lightweight premium padding is environmentally friendly. Designed to keep you warm without compromising on functionality, the luxurious water-repellent fabric and subtle Swarovski Samshield blazon make it an ideal for both training and competition.

Perfect for the cooler months, Hitchley & Harrow's limited edition luxe **Black Faux Fur Vest** is tailored from a technical sport outer fabric, while a stretch embroidered puffer panel on both sides of the garment maximises your range of movement. Genuine YKK plastic zips close the vest front and side pockets. Embellished with tone on tone metallic detailing, the luxe look is completed with a faux fur collar that can be worn up or folded down.

The stylish **B Vertigo Maxina Bodywarmer Vest** features lightweight down to keep you toasty, while never for a moment compromising on fashion forward style and high technicality. Its ultra-lightweight material offers extra freedom of movement and small air holes for breathability. Perfect for training, there's a two-way front zipper, centre back zip up for optimal movement, and the convenience of zipper pockets. 



[Always elegant, the Samshield Alta Badia Down Vest](#)



[Hitchley & Harrow's Black Faux Fur Vest Limited Edition](#)



[B Vertigo Maxina Bodywarmer Vest](#)



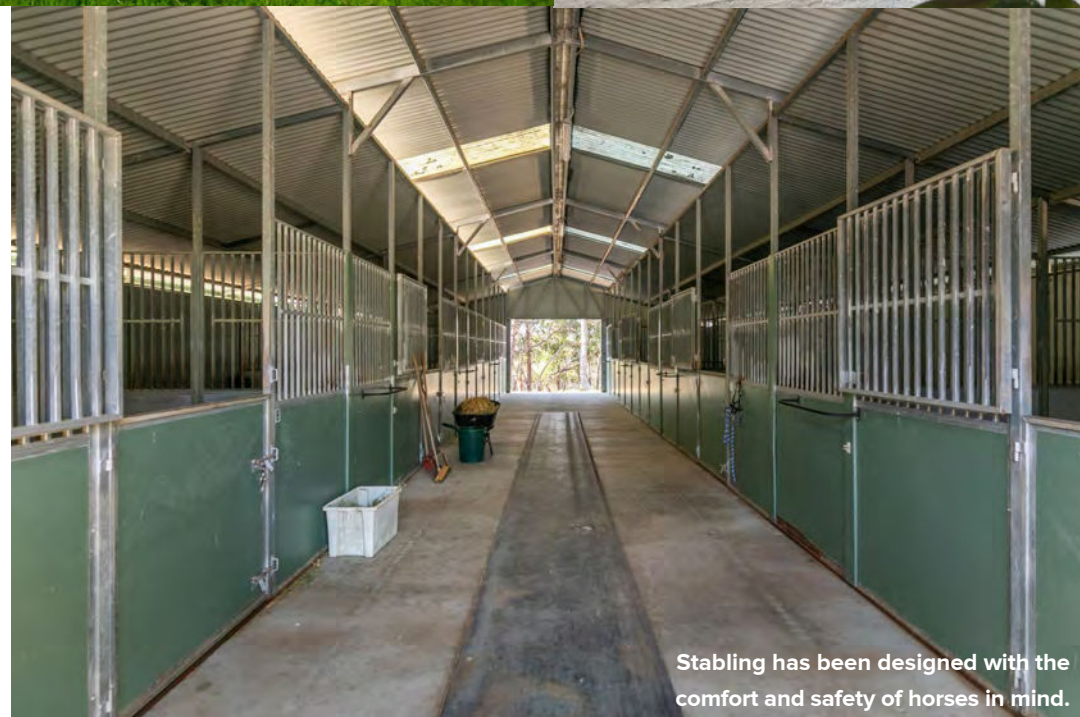
Enjoy the view and watch your horses grazing as you relax in comfort.



PROPERTY

An elite training facility

Your opportunity for a healthy income in a delightful setting is waiting at 154 Diggings Road, Chapel Hill, South Australia.



Stabling has been designed with the comfort and safety of horses in mind.



The spacious living area includes a large country style kitchen.

Only 10kms from Stirling in the beautiful Adelaide Hills, you'll be waking up to the sight of horses grazing on 33.38 hectares (82.46 acres) of premium horse country. Additionally, the property, currently used for spelling, training, and the rehabilitation of elite horses, is the trusted choice for six major trainers and numerous smaller

Thoroughbred trainers – and as such offers incredible income opportunities.

This exceptional holding, in which every element has been designed with horses in mind, offers an unparalleled lifestyle. With meticulously kept paddocks and top-tier facilities, the infrastructure is comprehensive, well maintained, and ready for you to step right in and enjoy.

There are 24 paddocks: 14 are equipped with shelters and five are stallion yards. The fencing, including post and rail with chain-wire, is excellent and there's ample room for spelling and grazing. Additionally, there are three day yards adjacent to 20 stables, each designed with the comfort and safety of your horses in mind. Facilities include a

tack room, staff room with toilet, an all-weather multipurpose round yard, a mechanised walker and treadmill, a 600m exercise track, 60mx20m sand arena, and a double wash bay with both hot and cold water.

The energy efficient homestead has five bedrooms, two bathrooms, two separate living areas, and a large country style

kitchen. You are invited to relax and unwind, while the slow combustion fire and reverse cycle air-conditioning ensure year round comfort. The home blends country charm with modern conveniences, providing the perfect retreat.

A large, well-equipped workshop, machinery shed, and hay shed helps make the day-to-day management of this

impressive estate run smoothly. Water security is ensured with three dams, a high quality bore, storage for 200,000 litres of rainwater, plus a 100,000 litre concrete tank, and an exceptional water license. 🏠

Visit the [property listing](#), or call Kim Shorland on 0412 523 723, or Georgia Shorland on 0413 907 990.

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Horse Queened Swash It



Imported KWPN Dressage Gelding



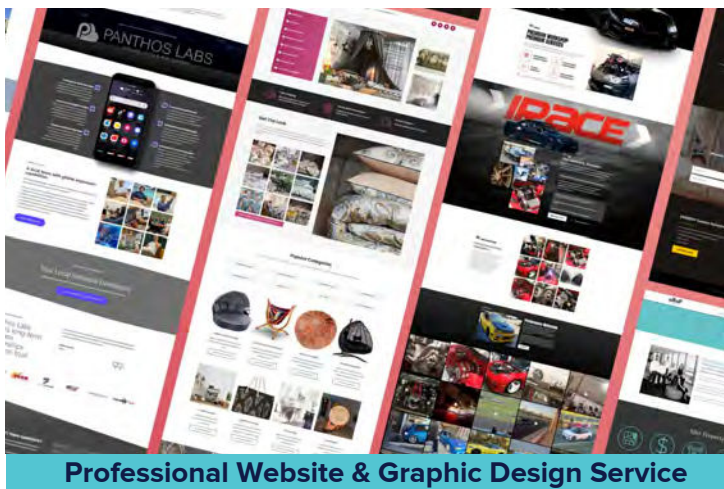
17.5" T8 Thorowgood Jumping Saddle



Eventing Schoolmaster



PS of Sweden Jump and Dressage Saddle Pads

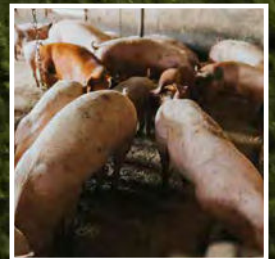


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