



# Jobskin

Working together for better solutions

Happy Easter to you all! 2020 has taken an interesting twist with the international pandemic, and the different measures that are being taken across Australian states and New Zealand to control the viral spread. It was reassuring to hear the Easter Bunny was still considered essential services by New Zealand Prime Minister, Jacinda Ardern, and reflects that despite the challenges this pandemic brings, Aussies and Kiwis are adapting to and coping with the new 'normal'. This is a true reflection on our resilience as nations and individuals.

From the team at Jobskin—stay safe, stay well and please reach out if there is something we can do to assist you. Our facility is fully operational and our team of designers, machinists and clinical advisors are ready to support you with your compression needs.

For more information on Jobskin, our operations and services in relation to the COVID19 pandemic click [here](#)

## Telehealth

### How to best serve our customers in the face of a pandemic

Hospitals and healthcare facilities across Australia and New Zealand have worked hard to facilitate their State and Government directives in the effort to reduce the spread of CoVID-19. Principles such as social distancing and lockdowns mean we as clinicians are not as 'hands on' as we have traditionally been with our patients and customers—we have been obligated to find another way to work.

Telehealth is not new to some parts of our Australia and New Zealand burn communities, but for many this is a significant change in practice. We here at Jobskin understand the challenges you are facing as clinicians, and want to show our support through sharing our experiences and knowledge of how to make Telehealth work for you and your patients.

Click [here](#) to view our Jobskin tips for measuring and fitting garments via telehealth.

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## Introducing Adam Ho, Managing Director, Jobskin

### **In 2019 you took the leap and bought Jobskin, what led you to make this career change?**

My mother has always taught me to help people and better the lives of others and I think the healthcare is an industry that does that. Since leaving university I've worked for Healthcare companies, but more in a spreadsheets and analytical capacity. When the opportunity came up to be able to invest and lead a company within the healthcare industry, and more specifically Jobskin, it was one that I couldn't pass up.

What really gave me the confidence to go ahead with Jobskin was the real passion and pride that everyone in the company had for the garments they made or were involved in, and I knew that they were as invested into the company and product as I will be.



### **What is something about the garment process, from order to dispatch, that has surprised you?**

The level of customisation that goes into each garment! There is a lot of planning and design work around how to best fit the garment to each individual user and it really is the cornerstone of what makes our product unique.

### **Which garment design or colour arrangement has caught your eye since starting at Jobskin, and why?**

I've always liked bold contrasting colours, black and whites, purples and oranges. However for me the garment that stands out the most is the blue and red Spiderman themed glove we made, as it was made for a colleague's son who had suffered burns injuries.

### **If you could choose one song to play every time you walked into a room for the rest of your life, what would it be?**

Haha, I've given this one a bit of thought (probably a bit too much). Some ideas included a line from Eminem's "Without me" that goes "Guess who's back, back again, Adam's back, tell a friend". But I'm also a huge Star Wars fan and walking into a room and having the Imperial March play would be quite cool.

In the end the winner for me is the first 10 or so seconds of the Indiana Jones theme song. It adds a bit of spice and excitement to any conceivable situation so I think that'll be my choice for now (imagines self running and diving into meeting rooms, across conference tables and out of danger...)

# Garment options and modifications.

## Style modifications for Thigh High, Waist High.

Our last article focused on different modifications available within the foot, so for this article we will continue to head up the leg and look at options available through the calf, knee and thigh.

### Zipper fastening aides

These fantastic little tabs that run along the length of the zipper are designed to aide the patient or carer when donning a garment. Perfect for patients who may have poor hand strength or generally reduced function, such as the elderly, by closing the tabs in stages, the patient is able to manage a full length zipper without having to apply the same level of force that would be required to close the entire zip in one go.



### Reinforcing- Anterior knee

Reinforcing through the anterior knee should be applied to minimise wear and tear of the garment for those who are particularly hard wearing through this area. When ordered, you will receive a garment that has a double layer of powernet through the wider knee area - great for those who have a job or hobby where a lot of kneeling or crawling is involved, or for those toddlers who have just started moving!

### Postural support

Postural support can be added to the leg in order to promote positive positioning. An example of this is when the material of a garment applies directional force which allows the patient to correctly position their legs in an externally rotated position, rather than their usual resting position of Internally rotated. This can significant improve the patients gait and posture, and is a valuable tool towards supporting a rehabilitation program.

Postural support is customisable to meet the unique needs of your patient.



For a printable quick reference resource of our Garment Selections and Modifications, click [here](#)

# Dear Designer

Q: I find it very challenging to measure people who are morbidly obese, and to provide a pressure garment that is comfortable, fits well and is effective. Any tips?

A: Providing a good-fitting garment for an obese/morbidly obese person is challenging, but yes, we have some tips that may make it easier for you.

1. The best place to start is consider the usual guidelines for providing a good and effective garment (refer 'Making a good garment great' available on the Jobskin website [here](#)). These guidelines will ensure that your garment ticks all the boxes OTHER than accommodating obesity. You can then adjust what you have in mind for your patient to accommodate the patient's size and idiosyncrasies in body shape.
2. Use the Jobskin Clinical Advisors and Designers – they are more than willing to help. You can do this in a few ways;
  - a. give them a call and talk through the challenges that you are facing - they may request additional measurements or may suggest alterations to the garment to support excess soft tissue.
  - b. take photos! Sounds obvious, but these help the design team enormously. A good idea is to include some photos with your tape measure in place, this provides information about where the excess tissue sits.
  - c. provide additional measurements particularly when a body part is asymmetrical. For example a large defect on one flank would require the usual circumferential measure, and also measures centre front to centre back horizontally on both left and right sides.
  - d. When you measure, simulate how the excess tissue will sit in the garment. Tissue that hangs down (like flabby upper arms, sagging breasts or pendulous bellies) don't 'hang' in a garment, the garment supports and contains that tissue. Wherever possible, a woman should wear a bra if her torso is being measured – that is a straightforward way to support the sagging tissue. Other body parts are not so easily contained without compromise to the measurements, but **cling wrap** is a fabulous option when applied with care and dignity. Wrap the arm/leg/belly then measure over the top of the cling wrap.
  - e. Consider postural support panels and/or reinforcements for excess and heavy tissue, for example an abdominal support panel to support the weight of a pendulous abdomen. This provides both support to the hanging heavy tissue AND extends the life of the garment by making it more robust.
  - f. Ensure you specifically consider anchorage – this can be helped by 5cm elastic, silicone-backed elastic, drawstrings, zips (with fastening aids and zip loops) and of course, wherever possible, anchoring the garment at a narrower point of the body or limb. NEVER end a garment at the widest point – the best will in the world won't keep that garment up!
  - g. Donning and doffing can be really tricky in the morbidly obese patient, with possible limitations in reach and mobility, plus the challenge of pulling up a garment over flabby or large body masses. While zips can be of great assistance, with an obese patient, they are only viable with the addition of fastening aids along the length of the zip, and sometimes with strong Velcro tabs at the top.
  - h. Make sure you have enough tape extensions available before you start measuring. There are 10 in an envelope so for morbidly obese patients you may need more than one pack. You can order more tapes [here](#)

# Journal Review

A histological study on the effect of pressure therapy on the activities of myofibroblasts and keratinocytes in hypertrophic scar tissues after burn.

Li-Tsang, C., Feng, B., Huang, L., Liu, X., Shu, B., Chan, Y. & Cheung, K. *Burns*, 2015, 41; 1008-1016.

## What was this article about?

It is internationally accepted that custom-made pressure garments should be used to minimise hypertrophic scarring, however it is not well understood the way in which pressure influences the developing scar tissue. This article was designed to look at the effect pressure therapy has on post burn hypertrophic scarring. Change in scarring was considered from both a clinical assessment (Vancouver Scar Scale) and histological perspective.

Three groups of subjects were recruited - intervention, 6 participants and 10 scar sites; non-intervention (young scar, being 1-4 months post injury), 7 participants and 11 sites; non-intervention (old scar, being 9-14 months post injury), 5 participants and 5 sites. Scar sites were a minimum of 4cm x 4cm in size, and assessment occurred at pre- pressure application, and 1 and 3 months post- pressure application. Additionally 3mm punch biopsies were obtained at each assessment point to enable histological analysis. Scars were excluded if there were open wounds on the scar, scars over small joints, or where a medical intervention, such as steroid injection, had been applied.

A hypertrophic scar was defined as 'a scar with a Vancouver Scar Scale (VSS) score of greater than or equal to 4'. Scar assessment was completed utilising the VSS, with scar height being identified through ultrasound, and colour being confirmed via spectrophotometer.

Intervention was defined as application of mechanical compression to the scar through a customised pressure garment with a compression rating of around 15mmHg (confirmed via Pliance X system). Instruction was to wear the garments 23 hours per day.

## Results for the pressure therapy group.

	Pre pressure	1 month	3 months
VSS Score	11.2 ± 0.42	10.6 ± 0.52	7.7 ± 1.05
Scar Thickness (mm)	6.28 ± 0.93	5.43 ± 1.39	4.37 ± 1.10
Scar Colour			
Lightness	46.67 ± 2.17	50.17 ± 3.68	51.15 ± 3.72
Redness	9.89 ± 1.82	9.08 ± 2.67	7.65 ± 1.41
Yellowness	11.09 ± 2.33	12.40 ± 3.03	13.22 ± 3.30
(p value <0.05)			

This shows a significant reduction in the VSS, Scar thickness and Scar colour values, indicating maturation of scarring.

In addition;

Effect of pressure therapy on VSS

Total VSS score showed a decreasing trend for those in the pressure therapy group, demonstrating a significant reduction in scar height through the use of pressure therapy at 3 months post intervention.

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## Journal Review continued...

### Effect of pressure therapy on histological appearance

Pre-intervention biopsies showed a thickening of the epidermis and dense dermis filled with dermal fibroblasts. As previously described in the literature, at pre-intervention collagen fibres were nodular in appearance and dense in arrangement. Following pressure therapy, dermal cell density was decreased, and a more wavy like pattern of collagen alignment existed.

### Effect of pressure therapy on keratinocyte proliferation

There was a dramatic reduction over 3 months in the number of keratinocytes seen in the scars where pressure therapy was applied. This difference was also significant when comparing the pressure therapy and non-pressure therapy groups, with the lowest results in the pressure therapy group. There was no significant difference in the volume of keratinocytes between the young and old scar group at either pre-assessment or at 3 month assessment.

### Effect of pressure therapy on myofibroblasts

The use of pressure therapy showed a substantial reduction in myofibroblasts. There was no difference in the number of myofibroblasts between young and old scarring groups at 3 months and the pre-pressure therapy group.

### Effect of pressure therapy on dermal fibroblast apoptosis

A significant difference was found between the intervention group and the two non-intervention groups, where the pressure therapy group showed greater dermal fibroblast apoptosis.

## **Were there limitations in this study?**

The duration of this study was only 3 months, and there would be great interest in a study that was over 12 months in duration. The racial profile of the participants was solely Chinese, and there would be value in seeing if these results held true for all populations.

## **How does this knowledge apply to my practice?**

While collagen plays an important role in establishing the structural integrity of newly formed tissue, it is self-limiting when collagen deposits are excessive and irregular, which results in contracture and deformity. Myofibroblasts play a role in synthesising and depositing collagen into scar tissue, and keratinocytes are the primary producer of the epidermal layer; while apoptosis is a planned process by which the body manipulates cellular synthesis. This article showed that through the use of pressure therapy, a clinician can positively influence the trajectory of a scar by supporting equalisation of synthesis and lysis.

When comparing the results of the intervention group to the two non-intervention groups, there was a statistically significant improvement in the scar outcome at 1 and 3 months post application of pressure therapy. The pressure therapy group benefited from histopathological changes and an improved VSS, through reduced scar height and scar colour (redness).

This article shows us that a well fitting form of pressure therapy, such as a custom-made pressure garment where a pressure rating of 15mmHg is achieved, benefits the patient within 3 months of commencing treatment. Given there is clinical evidence that shows pressure therapy results in an improved scar outcome histologically and in clinical appearance, this form of treatment intervention should be employed for patients with or at risk of hypertrophic scarring. This information supports and justifies any costs associated with custom-made pressure therapy intervention.

# Using Foams to enhance compression.

Ever looked at the Jobskin Options and Modifications picture gallery, and wondered what the foams are for? Well, they are a valuable tool to enhance the compression garments that you are prescribing for your patients.

While there is still considerable debate regarding the optimal level of compression for scar management, the challenges of providing compression to varying parts of the body are well known to clinicians in their daily practice. Concave surfaces of the body are particularly difficult to compress, as fabric 'tents' across the indented area, rather than conform. That is just the nature of taut fabric.

In clinical practice, therapists often use silicone putty as a 'filler' but this may not always be a practical solution, particularly if the area is large, and silicone may not be clinically justified and therefore is an un-necessary and expensive solution.

Basic physics suggests that if the concave surface can be levelled with the surrounding skin, then the circumferential pressure will be transferred to the underlying tissue. And this is where foam comes to the fore. Essentially foam acts as 'packing' or as a 'filler', which then acts as a medium through which the compression is applied to the underlying scar.

## Case Study 1

Patient A sustained a burn behind and below the lateral malleolus, when the wok slipped off the stove at home, splashing hot oil onto the right foot. The burn required split skin grafting, and therefore, required active scar management. When the wound was healed, the patient was fitted with a custom-made Jobskin anklet.

However, when the therapist fitted the sock, it was immediately obvious that the area in need of compression was receiving negligible contact from the powernet so was not being compressed. The areas around both medial and lateral malleoli are not always recognised as areas that may need to have the compression enhanced, as they are not concave. However, given the 'peak' of the malleolus, a pressure garment behaves as it would over a concave defect, 'tenting' from the back of the ankle to the bony prominence. This is particularly evident in slim legs, or when there has been extensive soft tissue debridement.

The solution for this patient was the addition of 'L-shaped' foam which was stitched into the garment to nestle around the malleolus, enabling adequate compression over the entire grafted area. A simple, inexpensive effective solution. And the therapeutic benefit can be further enhanced with the addition of Silon-TEX® stitched to the inside of the garment under the padding, and specifically over the scar area.



## Case Study 2

Patient B was next to her car, when she was hit by another car, resulting in extensive orthopaedic and soft tissue injuries to her right thigh, as well as multiple orthopaedic injuries elsewhere. The soft tissue loss in the right leg was almost to bone, was near circumferential and encompassed most of the middle third of her thigh. It was surgically repaired with split skin grafting but the resulting defect was significant, and distressing. There was some very minor laceration scarring around the defect so the application of compression garments alone would provide no therapeutic benefit whatsoever.

However, again, the application of foam padding provided a simple and inexpensive *solution*. The therapist used sheet plastic to trace the outline of the extensive defect, which she transferred to paper to email to the Jobskin Design team, along with an order for Jobskin custom Capri pants. A foam insert was made from memory foam, and covered with soft lining and supplied with the Capris, but not stitched in, in line with the decision made by the therapist in consultation with the patient. The patient was delighted!, saying it was the first time that she felt that her scars were receiving compression, but even better was that she had improved social confidence, as for the first time since her accident, she felt that her legs had a 'normal' profile.



## Case Study 3

Patient C is a young child with Ehlers-Danlos syndrome, with significant postural instability. She was dependent on her waist-high compression tights to provide her with postural support and correction but still had frequent falls, and was constantly bruising and lacerating her shins. Mum had tried a number of alternatives which included bandaging her shins (over her tights) and wearing hockey shin pads – both of which were socially isolating and the cause of playground teasing.

What was required was protection for the shins without compromise to the therapeutic benefit of the postural correction and support of the garment. Together with the support of the Jobskin Clinical Advisor and the Jobskin Design Team, the therapist was able to provide that same garment but with foam padding over the shins. High density foam and memory foam did not provide sufficient protection but orthofoam (a mouldable prosthetic foam) was perfect for the task. Pockets were sewn *on the inside* of her beautiful mauve with pink stitching tights to a) make the inserts less visible and b) to enable easy removal for laundering. Problem solved!

*(no photos available)*



# Meet the Team

Stella Shek, JOBSKIN Customer Service Representative



## **When (and why) did you join Jobskin?**

I joined Smith & Nephew in August 2018 before the change-over to Jobskin. The Customer Service role was advertised as a 9 month maternity leave position but was then offered to me full time in May 2019 which I was ecstatic about as I felt the company and the role was perfect for me.

## **What is your favourite part of your current role?**

Being customer service and the first point of contact, we get to speak directly to the therapists at the hospital and even sometimes speak to the patient themselves. My favourite part of my role – or, the most rewarding part of my role is being able to hear/liaise with the therapists and their patients about the great work the whole team at Jobskin put in. I love hearing feedback about how a garment fits like a glove or how much a garment has improved their day-to-day life - it is such a great feeling.

## **If you could do any other role in the factory, what would it be and why?**

I don't think I could change my role as I love it so much but if I could learn to sew, I think that would be such a handy talent to have in my back pocket. Being "fun size", I have always found it so difficult to get jeans that fit me. All jeans I own have had to be tailored. So, sewing would come to a huge benefit to my life!

## **If you could choose one song to play every time you walked into a room for the rest of your life, what would it be?**

My feel good song and one you just can't help but to boogie to – Believe By Cher.

# Jobskin's current trading information in response to CoVID-19

To our valued customers and clinicians,

Jobskin is committed to patient and community safety and so is closely monitoring government directive that may impact our production facility and health sector as a whole.

At this stage the Jobskin Facility is completely staffed and will remain so with strengthened PPE protections, unless government directives suggest otherwise. There are no indications that custom-made garments can be contaminated by CoVID-19 and so their manufacture and provision will continue as usual.

However, you may see some adjustment to the way that you are able to interact with our Clinical Advisors. The majority of health facilities are actively reducing elective appointments but for those patients who you will be seeing, and you would like clinical advice or support for, please contact Rosemary or Veronica directly and they will work with you to find a solution. Clinical visits are still possible, but your patient and facility may best be served by an electronic link-up as an alternative.

In the event of a complete lockdown, we will seek government guidance as to whether we fall under the "healthcare provider" provision and we will aim to maintain a skeleton staff if possible.

The situation is evolving every day, and we will update you accordingly.

On behalf of the Jobskin Team.



Adam Ho—Managing Director.

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