SurgihoneyRO™ FAQ'S

How is SurgihoneyRO™ different from other medical honeys?

All honeys contain natural antimicrobial properties. However, SurgihoneyRO™ is a bioengineered product. It has been modified to enhance and precisely control its antimicrobial potency – a medical innovation. The active agent is Reactive Oxygen Species (ROS), mainly hydrogen peroxide (H_2O_2). SurgihoneyRO™ is a more powerful antimicrobial than other medical honeys. Laboratory tests show how it has superior anti-biofilm action.

What is the difference between SurgihoneyRO™ and H_2O_2 solution?

H_2O_2 was traditionally used in wound care in high concentrations for its bacteria-killing properties but use was stopped as it also damaged healthy tissue. By contrast, SurgihoneyRO™ delivers low doses of H_2O_2 known as Reactive Oxygen™ (RO™) to the wound site, for a sustained period. The level of RO™ is carefully controlled to kill bacteria yet is safe (non-toxic) to use on human tissue. In a static or non-healing wound, production of RO™ can be interrupted. SurgihoneyRO™ mimics the body's natural production of H_2O_2 in the normal wound healing process.

Does SurgihoneyRO™ contain Manuka?

No. Manuka has a different non-ROS mode of action.

Does SurgihoneyRO™ macerate the skin like other honeys?

No. The RO™ quickly switches off the microbial host response and exudate levels plummet within the first few days – so regarding peri-wound maceration we recommend that skin barrier protection is used whilst heavy/copious exudate levels are present, due to host response being active but the levels of maceration as seen with other honeys is not seen with SurgihoneyRO™ as the "exudate tap" has been turned off. This means the osmosis high to low concentration shift does not happen like regular honey not carrying RO™.

How is SurgihoneyRO™ produced?

SurgihoneyRO™ is sourced from honey farms with stringent controls to ensure it is ultra-pure and free of antibiotics, chemical fertilisers and pesticides. It can be produced from any pure honey and goes through a proprietary preparation process to enhance and precisely control its antimicrobial potency. It is sterilised by Gamma-irradiation.

How does SurgihoneyRO™ kill bacteria?

The RO™ in SurgihoneyRO™ kills infection causing bacteria, including MRSA, Pseudomonas, and E. coli (5.6). The RO™ comes from the production of H_2O_2 when the gel is activated by moisture. In dry conditions, no H_2O_2 is released.

H_2O_2 is highly unstable and rapidly breaks down into water and a single oxygen atom (H_2O and O-). The reactive or unstable oxygen atom 'steals' electrons binding to proteins in bacteria cell walls and the walls rupture resulting in bacterial cell death. SurgihoneyRO™ is an effective antimicrobial wound gel with antibiofilm activity.

SurgihoneyRO™ has a medical honey gel base, bioengineered to deliver RO™, which is released in a controlled therapeutic level over a sustained period of time to combat biofilm and infection.

What are the clinical benefits of SurgihoneyRO™?

SurgihoneyRO™ helps clear infection-causing bacteria, reduces biofilm *(in vitro)*, supports wound contraction, reduces inflammation and pain and facilitates effective debridement.

Which bacteria is it active against?

SurgihoneyRO™ is active against a broad range of bacteria, both Gram-positive and Gram-negative, including multi-drug resistant strains, such as MRSA and Pseudomonas aeruginosa. Laboratory testing has demonstrated it can prevent and eradicate mature biofilms.

What are the Contraindications for SurgihoneyRO™?

- Known allergy to bee venom or honey related products

What are there any cautions for SurgihoneyRO™?

- Actively bleeding wounds. For acute wounds, haemostasis needs to be achieved prior to dressing. For chronic wounds bleeding should controlled first.

Can SurgihoneyRO™ be used in diabetic patients?

Yes SurgihoneyRO™ can be used in diabetic patients. During episodes of infection and the use of honey based products it is recommended that blood glucose levels are closely monitored.

Can SurgihoneyRO™ be used in post radiation wounds?

There is evidence in the literature of honey products being used successfully in the treatment of post radiation wounds. No formal work has been undertaken to date exploring the use of SurgihoneyRO™ for this indication.

Can SurgihoneyRO™ be used in babies?

SurgihoneyRO™ has been used successfully in the treatment of an abdominal wound infected with MRSA in a young baby in Oxford UK. This is available as a case study. No formal work has been undertaken in this arena.

Is SurgihoneyRO™ suitable for a fungating wound? If not why?

There are no contraindications for this condition.

How is SurgihoneyRO™ applied?

A layer 2mm in thickness should be applied directly to the wound bed. SurgihoneyRO™ can also be applied to inert dressing carrier then placed on the wound bed.

How is SurgihoneyRO™ removed from the wound?

The carrier honey will be utilised at wound level during wear time but if residue of honey is present at dressing change this can be removed during normal wound cleansing regime.

What level of exudate can SurgihoneyRO™ be used with?

It is well reported that honey products stimulate increased levels of exudate due to osmotic effects. It is also well reported that exudate levels diminish rapidly as treatment progresses as the microbial mass is reduced due to the antimicrobial effect. Secondary dressing choice is a critical factor in the management of exudate when using honey dressings. In the early phase a highly absorbent dressing should be used.

Does the level of exudate affect the performance of SurgihoneyRO™?

The antimicrobial potency of SurgihoneyRO™ is due to the continued and sustained release of Reactive Oxygen (RO). The honey serves as the carrier for the RO and as cells at the wound bed utilise the honey carrier as energy for proliferation the effect will diminish over time. In the presence of increased exudate the honey will become more dilute, however in a recent research study SurgihoneyRO™ remained the most potent antimicrobial at lower concentrations than other honeys.

What is the wear time of SurgihoneyRO™?

SurgihoneyRO™ can be left in place for up to 7 days. In the laboratory SurgihoneyRO™ continued to perform as an antimicrobial beyond 7 days. It is recommended that SurgihoneyRO™ is applied every 72 hours (3 days) to maximise effect and can be applied more frequently in critical wound infections.

Is SurgihoneyRO™ available in a dressing format?

New line extensions are in progress which include impregnated dressings and other innovative presentations.

What secondary dressing should be used?

A highly absorbent secondary dressing should be used in the initial treatment to manage exudate and absorbency level can be titrated as the exudate levels decrease during treatment.

Can SurgihoneyRO™ be used under compression?

Yes SurgihoneyRO™ can be used under compression as it may remain in place for up to 7 days.

Can a barrier protectant be used on the peri-wound area?

To protect the peri-wound area it is advisable to utilise barrier skin protection to prevent peri-wound maceration.

Does SurgihoneyRO™ sting or cause increased pain due to osmotic effect?

It is reported in the literature that the “sting” associated to the use of honey products is related to the PH level and acidity or to nerve ending stimulation. Some patients are sensitised and demonstrate a greater nerve ending response (those being treated with gabapentin). However, the results of a 104 patient evaluation reported 102 patients experienced no stinging or pain.

How long can SurgihoneyRO™ be used for? When should you stop using it?

There are no contraindications associated to long term use if positive outcomes are being seen. If in the first 2 weeks of use there is no improvement in wound condition and microbial status then use should be stopped. In a 114 wound/104 patient evaluation mean use was 25.7 days.