



# ADVANCING CARE IN A NEW ENVIRONMENT

TIMELY SOLUTIONS FOR THE  
RECOVERY AND REDESIGN OF  
HOSPITAL OPERATIONS

**Medtronic**  
Further, Together

# THE WORLD HAS CHANGED. SO HAVE OUR HEALTHCARE SYSTEMS IN CANADA.

We now live in a physically distanced world, **connected in new ways.** And patients have **new expectations.**



# EXPECTATIONS & FOCUS AREAS HAVE CHANGED

## <2019

### ACCESS & OUTCOMES

- Patients **expected to wait** for care, unless urgent
- **Busy, crowded** waiting rooms
- Visit doctors/nurses **in person**
- Improvements focused on access and outcomes in acute care setting

## 2020

### SAFETY AS A PRIORITY

- Increased worry about **exposure to infection**
- Concern about **postponed procedures** & delays in care
- New expectations and acceptance of **virtual care**
- Redesign for **safety**

## 2021+

### RECOVER & REDESIGN

- Expect **virtual care** to stay
- **Safeguarding** physical & mental wellbeing
- **Addressing outcomes & access** with resource constraints
- Opportunity for **major shifts in healthcare redesign**

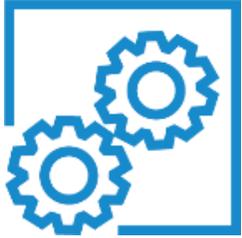
# ADAPTING TO A NEW REALITY

## REDESIGNING FOR A NEW HEALTHCARE ENVIRONMENT

As we continue through unprecedented times, Medtronic is committed to offering a variety of products, technologies and solutions that help to **simplify** interactions, **optimize** patient access, **advance** patient and provider experience, and **protect** patients, healthcare providers and our employees. We have developed strategies to support our hospital partners in redesigning operations and establishing new protocols for the post-COVID-19 environment.



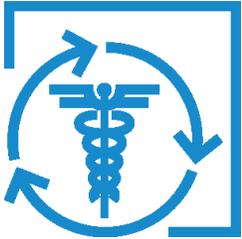
# SOLUTIONS TO SUPPORT RECOVERY AND REDESIGN



## **SIMPLIFY**

interactions between patients, providers, supply chain partners and Medtronic.

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## **OPTIMIZE**

patient access and care pathway efficiency considering capacity limitations.

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## **ADVANCE**

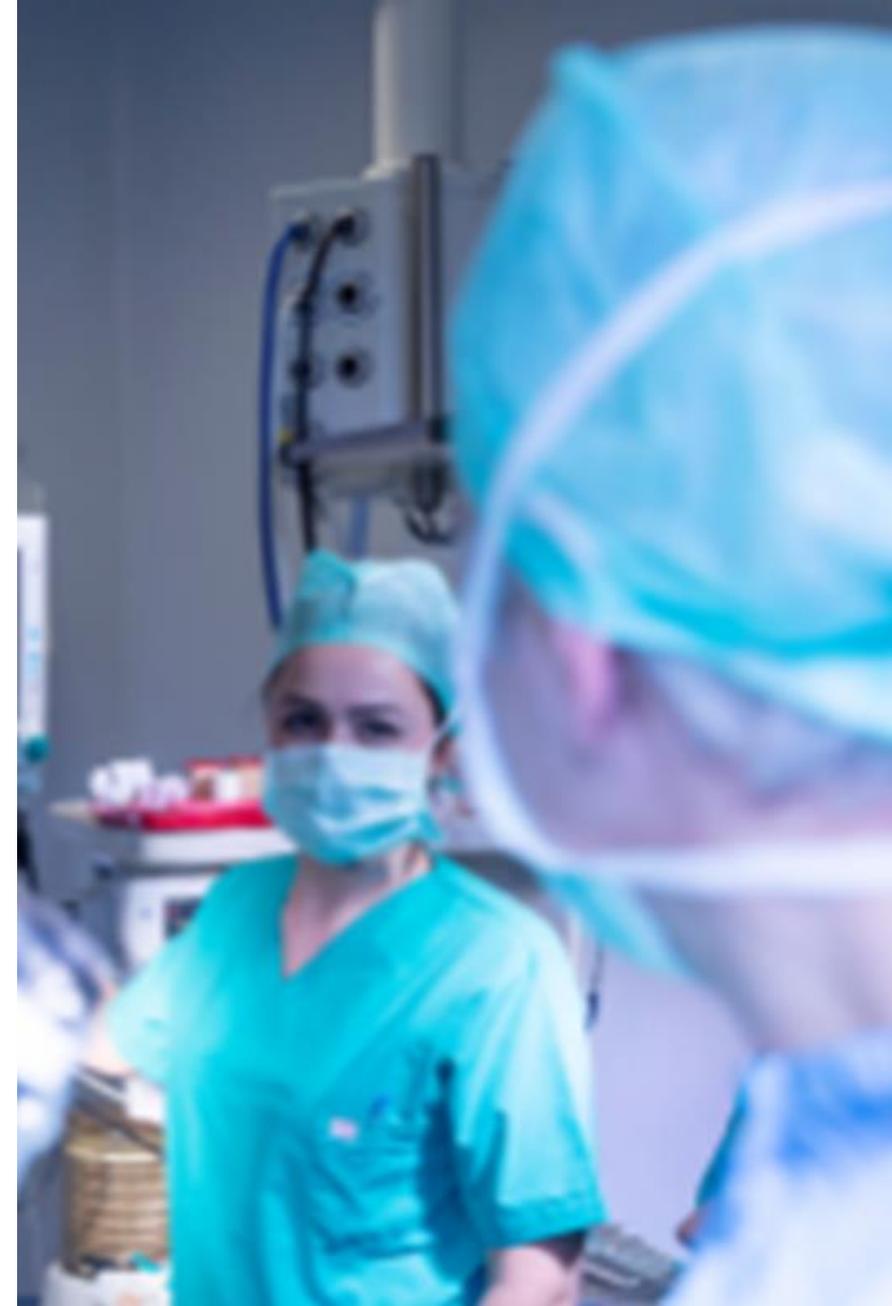
patient care while maintaining physical distancing.

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## **PROTECT**

healthcare providers, patients and staff.

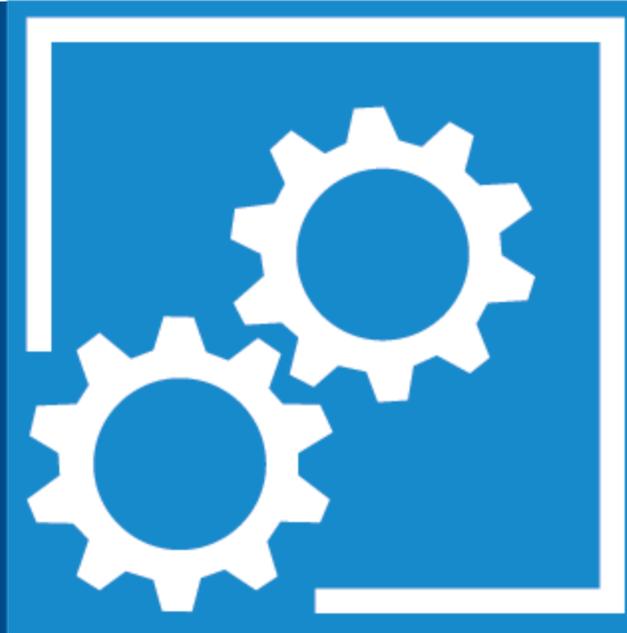


# SOLUTIONS TO SUPPORT RECOVERY AND REDESIGN

## SIMPLIFY

### **SIMPLIFY** INTERACTIONS BETWEEN PATIENTS, PROVIDERS, SUPPLY CHAIN PARTNERS AND MEDTRONIC

- Online customer portals for order management
- Virtual engagement and training programs for providers
- Remote technical services and support



### **SUPPORTED BY INNOVATION**

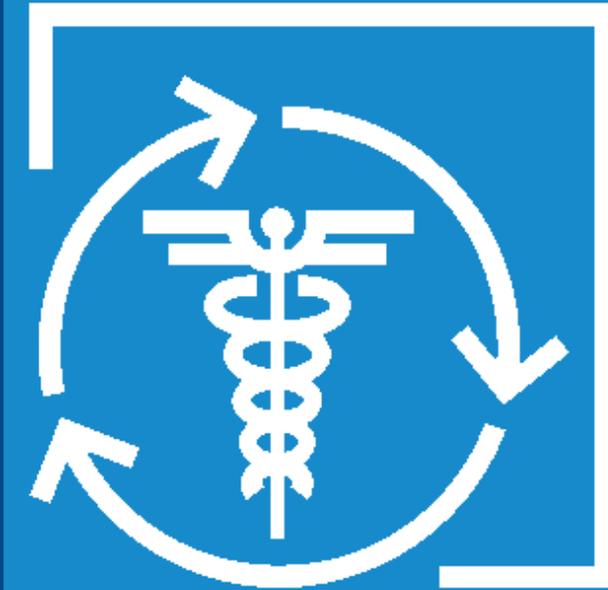
- Medtronic Connect
- Virtual Provider & Patient Training
- Navigation & Imaging Remote technical service
- Virtual Technical support and training
- Virtual Patient Engagement
- Simulation and AR/VR Solutions

# SOLUTIONS TO SUPPORT RECOVERY AND REDESIGN OPTIMIZE

## OPTIMIZE

### PATIENT ACCESS AND CARE PATHWAY EFFICIENCY UNDER CAPACITY LIMITATIONS

- Advisory services for hospital recovery and sustainability
- Dashboarding, simulation & data analytics for redesign
- MIS technology and approaches to optimize patient care



## SUPPORTED BY INNOVATION

- Integrated Health Solutions advisory services
- Drug-coated and Cryoablation Balloon Therapy
- Minimally-Invasive Spine & General Surgery and Cardiac Procedures
- Laser Induced Thermal Therapy
- Balloon Kyphoplasty
- Endovascular and Thoracic endovascular aneurysm repair
- Heart replacement alternative solutions
- Virtual Respiratory Monitoring

# SOLUTIONS TO SUPPORT RECOVERY AND REDESIGN ADVANCE

## ADVANCE PATIENT CARE WHILE MAINTAINING PHYSICAL DISTANCING

- Remote diagnostics
- Remote monitoring and programming platforms
- Online and app-based tools for device patients



## SUPPORTED BY INNOVATION

- Remote Cardiac Monitoring platform for ICD/IPG
- Wireless insertable cardiac monitor
- Diabetes data management
- Hybrid Closed Loop Insulin Pump System with CGM
- Virtual Patient Monitoring Platform

# SOLUTIONS TO SUPPORT RECOVERY AND REDESIGN

## PROTECT

### **PROTECT** HEALTHCARE PROVIDERS, PATIENTS AND STAFF

- Infection-control measures to protect patients and providers
- Remote Device Monitoring, Programming and Diagnostics to maintain physical distance and limit hospital visits



### **SUPPORTED BY INNOVATION**

- Acute care and Portable Ventilation / Filtration
- Enhanced Respiratory Monitoring
- Remote Monitoring and Clinical Decision Support
- Video laryngoscopy
- Remote Cardiac Monitoring platform for ICD/IPG
- Wireless insertable cardiac monitor
- Absorbable Antibacterial Envelope for implantable devices
- Diabetes data management

# ADVANCING CARE IN A NEW ENVIRONMENT

## AN OVERVIEW OF OUR SOLUTIONS

# CARDIAC AND VASCULAR SOLUTIONS

Our cardiac solutions offer providers and patient more efficient care, helping to reduce hospital visits, reinterventions, infections and complications.



	<b>CARELINK SMARTSYNC™</b>	<b>Reveal LINQ™ II</b>	<b>TYRX™</b>	<b>DCB</b>	<b>EVAR/ TEVAR</b>
<b>TECHNOLOGY</b>	Cardiac remote monitoring platform for ICD/IPG	Wireless and powerfully small insertable cardiac monitor	TYRX Absorbable Antibacterial Envelope	Drug-coated balloon (DCB)	Endovascular aneurysm repair and Thoracic endovascular aneurysm repair
<b>BENEFIT</b>	<ul style="list-style-type: none"> <li>• Enables remote troubleshooting of devices</li> <li>• Keeps patients at home</li> <li>• Minimizes the need for PPE</li> <li>• Allows staff to be more efficient, as remote checks take less time</li> </ul>	<ul style="list-style-type: none"> <li>• Bluetooth-enabled remote diagnosis and programming of Cardiac issues via a patient app</li> </ul>	<ul style="list-style-type: none"> <li>• Combats infection by releasing anti-microbial agents for seven days after the device is implanted</li> <li>• Reduces infections, future hospitalizations and reinterventions, keeping patients out of hospitals</li> </ul>	<ul style="list-style-type: none"> <li>• DCB reduces reinterventions by 20% at 1 year, improving efficacy and keeping patients out of hospital.</li> </ul>	<ul style="list-style-type: none"> <li>• Minimally invasive approach keeps patients out of hospital, improves recovery time and reduces complications, which reduces length of stay.</li> </ul>

# DIABETES SOLUTIONS

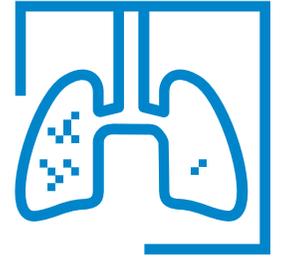
Our diabetes solutions offer healthcare professionals and patients more efficient care – helping to reduce clinic visits – as well as training, service and support to manage each patient’s overall diabetes care.



	INSULIN PUMP	CGM	CARELINK
TECHNOLOGY	The world’s first hybrid closed-loop system. Delivering continuous and customized doses of rapid-acting insulin 24 hours a day to match the body's needs.	The Guardian™ Connect is a standalone continuous glucose monitoring system for people on insulin injections.	CareLink™ Personal software is a free, web-based program that collects information directly from a patient’s diabetes management system. Reports can be generated for use during doctor’s visit and to monitor progress, spot highs and lows and discover patterns or trends.
BENEFIT	<p>SmartGuard™ Technology:</p> <ul style="list-style-type: none"> <li>• Small amounts of insulin released continuously throughout the day.</li> <li>• Additional insulin can be delivered on demand to match food intake or to correct high blood glucose.</li> <li>• Helps keep your sugar levels in your target range for fewer lows and highs — day and night</li> <li>• Stops insulin up to 30 minutes before reaching your preset low limits.</li> <li>• Automatically restarts insulin when your levels recover without bothersome alerts.</li> <li>• Helps you avoid lows and rebound highs</li> </ul>	<ul style="list-style-type: none"> <li>• System will alert you from 10 to 60 minutes before a high or low.</li> <li>• Connect up to four care partners to view your sensor readings and alerts.</li> <li>• Care partners can view readings and alerts from any internet enabled device.</li> <li>• View sensor readings and alerts on a compatible mobile device.</li> </ul>	<ul style="list-style-type: none"> <li>• See the same reports as your doctor</li> <li>• Spot highs and lows</li> <li>• Discover patterns and trends</li> <li>• Review reports virtual with your doctor</li> </ul>

# RESPIRATORY & MONITORING SOLUTIONS

Our respiratory and monitoring solutions offer providers and patients technologies that support care in the ICU, OR, NICU, general care floor, and during procedural sedation.



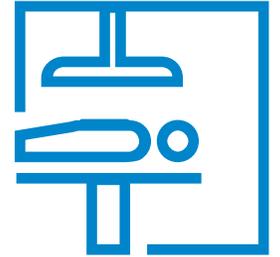
	<b>PURITAN BENNETT™ 980 VENTILATOR</b>	<b>DAR™ FILTRATION</b>	<b>VITAL SYNC™</b>	<b>MCGRATH™ MAC</b>	<b>MICROSTREAM™ CAPNOGRAPHY</b>
<b>TECHNOLOGY</b>	Critical care ventilator with advanced expiratory filtration	High-efficiency respiratory filters	Virtual Patient Monitoring Platform	Video laryngoscope designed for routine use	End-tidal CO <sub>2</sub> monitoring technology
<b>BENEFIT</b>	<ul style="list-style-type: none"> <li>N100-equivalent expiratory filtration to protect patients and caregivers from exhaled pathogens</li> <li>PAV+ software to maintain respiratory muscle function and support weaning from mechanical ventilation</li> </ul>	<ul style="list-style-type: none"> <li>Infectious pathogen containment via high efficiency mechanical and electrostatic respiratory filter solutions</li> </ul>	<ul style="list-style-type: none"> <li>Vital Sync™ monitoring and clinical decision support (CDS) enables remote monitoring, alarm management, reporting, and EMR connectivity</li> </ul>	<ul style="list-style-type: none"> <li>Enhanced clinician safety by increased distancing during endotracheal intubation</li> <li>Higher first-attempt intubation success rate than direct laryngoscopy in routine intubation<sup>1,2</sup></li> </ul>	<ul style="list-style-type: none"> <li>Provides information on adequacy of ventilation and can alert clinicians in the event of respiratory compromise</li> </ul>

1. Kriege M, Alflen C, Tzanova I, et al. Evaluation of the McGrath MAC and Macintosh laryngoscope for tracheal intubation in 2000 patients undergoing general anaesthesia: the randomized multicenter EMMA trial study protocol. *BMJ Open*. 2017;7:e016907.

2. Kleine-Brueggene M, Greif R, Schoettker P, et al. Evaluation of six video laryngoscopes in 720 patients with a simulated difficult airway: a multicentre randomized controlled trial. *Br J Anaesth*. 2016;116(5):670-679.

# RESTORATIVE THERAPY SOLUTIONS

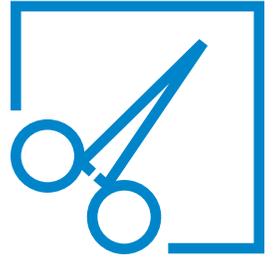
Our service solutions help ensure your equipment is available when you need it. Our technology solutions offer physicians and patients more efficient care, helping to reduce hospital stay, infections and complications.



	SERVICE	MIS SPINE	LITT	BKP
TECHNOLOGY	Navigation and Imaging Service Solutions	METRx™ System and Medtronic spinal implants	Visualase™ MRI-guided laser ablation system	Kyphon™ Balloon Kyphoplasty
BENEFIT	<ul style="list-style-type: none"> <li>Limits equipment downtime</li> <li>Shared-service agreements enable onsite biomedical engineers to perform some repairs</li> <li>Remote dial-in for troubleshooting and software upgrades</li> </ul>	<ul style="list-style-type: none"> <li>Minimally invasive approach to spine procedures reduces operative time, length-of-stay and blood loss to improve OR efficiency, hospital resource utilization and patient outcomes</li> </ul>	<ul style="list-style-type: none"> <li>Minimally invasive approach in cranial neurosurgical procedures reduces length-of-stay, improves recovery time and reduces complications</li> </ul>	<ul style="list-style-type: none"> <li>Readmission rates are significantly lower for inpatients treated with BKP vs. non-surgical management (NSM)</li> <li>BKP has a greater likelihood of routine discharges to home vs. NSM</li> </ul>

# SURGICAL SOLUTIONS

Our surgical solutions offer providers and patients more efficient care, helping to reduce O.R. time, blood loss, patient length of stay, complications and readmission rates.



	<b>LIGASURE™</b>	<b>SONICISION™ DISSECTION SYSTEM</b>	<b>SIGNIA™ STAPLING SYSTEM</b>	<b>TRI-STAPLE™ TECHNOLOGY</b>
<b>TECHNOLOGY</b>	Advanced energy vessel sealing devices	Advanced energy ultrasonic curved-jaw dissection system	Advanced surgical stapling technology	Endoscopic stapling technology
<b>BENEFIT</b>	<ul style="list-style-type: none"> <li>• Reduced blood loss compared to sutures and clips</li> <li>• Reduced procedure time compared to sutures</li> <li>• Reduced patient length of stay compared to sutures</li> </ul>	Designed to enable: <ul style="list-style-type: none"> <li>• Access and visibility in tight spaces</li> <li>• More procedural uses</li> <li>• A safer OR</li> <li>• Streamlined cleaning and sterilization</li> </ul>	<ul style="list-style-type: none"> <li>• Adapts to changing surgical conditions by appropriately adjusting firing speed based on force measurements to optimize staple formation, so you get more consistent staple lines</li> </ul>	<ul style="list-style-type: none"> <li>• Generates less stress on tissue during compression and clamping, allows greater perfusion into the staple line and provides superior performance in variable thicknesses</li> <li>• Improves staple-line strength, leak resistance and hemostasis, when compared to the universal reloads</li> </ul>