



# Insulin Pumps at Airport Security

Over 7000 people have signed a petition asking for airports to review the training given to Airport Security Officers regarding the screening of medical equipment.

The petition was launched after my family was held by airport police for two hours and denied access to an aircraft because of our son's insulin pump.

When asked what aviation security regulation has to say about insulin pumps, the UK Civil Aviation Authority said, *"The regulations which set down the methods available to airports for screening passengers and their cabin baggage include options for when a passenger either prefers not to submit to a particular screening process or is simply unable to do so for safety or other reasons."* See pages 4 & 5.

Therefore, medical devices should be subject to alternative security screening (for example via a wand inspection to test for traces of explosives).

As a direct result of our campaign, the Head of Security at ACI World successfully presented our issue to the International Civil Aviation Organization (ICAO) which advises on global standards and recommended practices. Updated guidance material was then included in the 10th edition of ICAO's Security Manual (Doc8973) released in September 2017.

Airports Council International (ACI) also published a full-page article called "Best practice for screening of insulin pumps" in their World Report, which was sent to their 590+ members operating 1,850+ airports in 170+ countries.

Correspondence with various airport authorities demonstrate that there is appropriate protocol in place. Regulations allow for passengers that they do not wish to be screened by x-ray (and where medical confirmation is provided) and for items of cabin baggage to be screened by hand search, supported by Trace Detection.

However, the comments received from insulin pump users reveal indisputable evidence that confusion regarding insulin pumps at airport security is a prevalent and global issue, which can have dangerous medical consequences.

We advise that passengers show airport security personnel this document along with medical confirmation from their practitioner so that safe screening may be undertaken accordingly. Further updates and information can be seen on the following website:

[www.change.org/p/airport-authorities-standard-policy-for-insulin-pumps-at-airport-security](http://www.change.org/p/airport-authorities-standard-policy-for-insulin-pumps-at-airport-security)

RACHEL HUMPHREY  
Head of Campaign

# Medtronic

Travelers on insulin pump therapy should always remove their insulin pump, sensor, transmitter, and meter before entering a room that has x-ray, magnetic resonance imaging (MRI), diathermy, or CT scan equipment. This includes x-ray machines at airports that scan carry-on or checked luggage, in addition to full-body scanners. The magnetic fields and radiation in the immediate vicinity of this equipment could make their devices malfunction or damage the part of the pump that regulates insulin delivery, which could cause serious health risks including hyperglycemia or hypoglycemia.

Our insulin pumps, sensors, transmitters and meters can withstand exposure to airport metal detectors used at security checkpoints. For these checkpoints we advise that patients let airport security personnel know that they are wearing a physician-prescribed medical device and request an alternative screening process that does not use an x-ray or full-body scanner.

If a Medtronic insulin pump is exposed to a strong magnetic field, such as an MRI, discontinue use immediately and contact our 24 Hour Helpline for further assistance. In these instances our pumps have a sophisticated safety network built-in that is designed to detect anything unusual and alert the patient if there is an issue.



Roche Diabetes Care insulin pumps are designed to withstand common electromagnetic interferences including some airport security systems or common anti-theft monitoring devices such as in department stores which should not affect the functioning of the insulin pump. However, there are sources of interference such as X-ray, computer tomography, CAT scan and MRI which may cause an insulin pump to stop delivering insulin and displaying an error message. To minimize the risk from a potential electromagnetic interference and ensure a seamless operation of the insulin pump, our manuals for the Accu-Chek Combo and Accu-Chek Insight systems contain dedicated warnings and instructions. As patient safety is a key priority for Roche Diabetes Care, we are regularly evaluating our products according to current standards, test them against latest technologies and update our labelling according to the respective test results.

# Best practice for screening of insulin pumps

*By Nina Brooks, Head, Security, ACI World*

As today's security screening professionals work tirelessly to keep the travelling public safe, there is, on occasion, some confusion and variation of practices globally around the screening of insulin pumps at airport security checkpoints. In this article, we look at the issue, and suggest how airports can help.

## Brief introduction to the insulin pump

An insulin pump is a small battery-operated device that delivers precise doses of rapid-acting insulin 24 hours a day to closely match a body's needs. The insulin pump has a compartment that holds a reservoir that is filled with insulin which is then infused into the body through tubing and a cannula inserted under the skin. The insulin pump must be constantly attached as disconnection causes blood sugars to rise and hyperglycaemia or ketoacidosis can rapidly develop, which can quickly become a life-threatening emergency.

## Insulin pumps and airport security

Hospitals and insulin pump manufacturers advise that the electromagnetic radiation used by x-ray screening for carry-on or checked luggage and full-body airport scanners may interfere with the motors of insulin pumps, resulting in a potential impact on insulin delivery. As a result, these sources suggest that passen-

gers with insulin pumps should be subject to alternative security screening (for example, via pat down or explosive trace detection methods).

However, diabetes organizations, experts and affected passengers report that airport security officers are often unaware that passengers should not be asked to remove their insulin pump for screening, nor should pumps be subjected to x-ray screening or full-body scanners. This applies both to insulin pumps worn on the body or spares carried in hand baggage.

## Regulation

Some countries have provision in regulation for dealing with medical aids, which allow for alternative screening methods such as a hand search or trace detection. However, procedures are not always well understood or implemented.

The Airport Operators Association in the UK has advised passengers to notify security personnel at the screening point of any medical screening requirements and ensure that they carry medical confirmation from their practitioner so that screening may be undertaken accordingly.

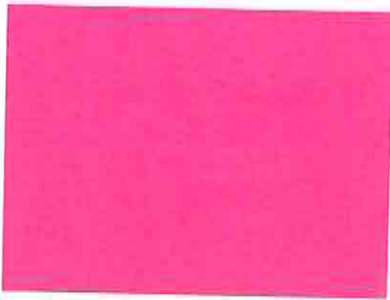
## Next steps

ACI World will bring this issue to the next Aviation Security Panel in 2017, requesting that it is highlighted to regulators and included in guidance material. In the meantime, we would ask that airports review their procedures with regard to the screening of medical equipment and ensure that screeners are well informed.

For more information on ACI's work in airport security, visit [www.aci.aero/security](http://www.aci.aero/security).



Chief Executive's Office



29 June 16

Dear Radel,

Thank you for your recent emails regarding the difficulties experienced by people with insulin pumps. I was sorry to hear of your experience at Dubai airport, and pleased to learn that the airport authorities there, as a result of your intervention, had amended their processes. You did not mention that you had any issues when departing from Heathrow, so I trust there were no difficulties with the insulin pump there.

You have described in your emails the aims of your campaign: for airports to recognise that insulin pumps are medical devices which should not be required to pass through x-ray machines or security scanners and that there should be alternative processes in place. It seems to me that these are these are very reasonable points. You are also seeking assistance in trying to achieve a level of international standardisation in this area, asking if we would discuss this with the Department for Transport and I hope I can reassure you on this matter.

In your most recent email to me, you ask what aviation security regulation has to say about insulin pumps. Rather than make specific reference to these pumps, or to any other particular medical device (the wide range of such devices and aids, and the regular changes and developments in them, are such that this would be neither feasible nor sensible), the regulations which set down the methods available to airports for screening passengers and their cabin baggage, include options for when a passenger either prefers not to submit to a particular screening process, or is simply unable to do so for safety or other reasons. The relevant provision is part 4.1 of the European Commission document (EC2015/1998), and in particular, paragraphs 4.1.1.2, 4.1.1.10, and 4.1.2.10. I have attached a copy of the regulation.

In line with these regulations, there is a process in place in the UK, whereby all passengers who opt out of being screened by a security scanner, may request an alternative screening method (e.g. an enhanced hand search in private). For many years passengers have been able to opt out of passing through a Walk-Through Detector, and instead undergo a hand search. In the same way, there are alternatives to the scanning of medical devices (including insulin pumps) where these are not carried on, or implanted into the body, or where spare devices are being carried. These arrangements, in respect of all types of medical devices, including insulin pumps, are captured in guidance which we have issued to UK airport.

We have recognised from the responses on your petition page, that on some occasions these alternative processes have not in practice been offered to passengers and so we will write again to all UK airports, reminding them of the position. This letter is likely to include security

sensitive information but, I will ensure that if that is so, you are advised of the burden of its message to airports. We have already been in touch with industry representative bodies about these matters, amongst them the Airport Operators' Association.

Through our website, we advise passengers with a medical condition, or a medical device, always to carry a letter or other document provided by a medical practitioner, that confirms their condition, the essential medication they must carry, and if appropriate, the nature of any medical device. This confirmation should be handed to the Security Officer before any screening is carried out and can assist them in ensuring that the passenger is screened as appropriate to their needs. This screening would need to be, as I am sure you would accept, to the required security standard. We have reviewed the information on our website in the light of your campaign and we will update it in the next few days, to make sure that all of this is entirely clear to passengers.

You are right of course to underline the need for a good understanding of these issues internationally. We are responsible for regulating aviation security within the UK, and the Department for Transport for engaging with authorities overseas, but we do of course liaise with the Department on such matters as these and following your emails, we have done so in this instance. I know that you have yourself written to the Department about the international dimension, and I am sure they will consider what action might be taken in that respect.

I hope that I have been able to explain the work that we have done in this area and what else we will now be doing in response to your campaign. Please do let me know if you believe there is any other avenue we should be addressing to resolve this issue.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Andrew Haines', written in a cursive style.

Andrew Haines  
**CHIEF EXECUTIVE**