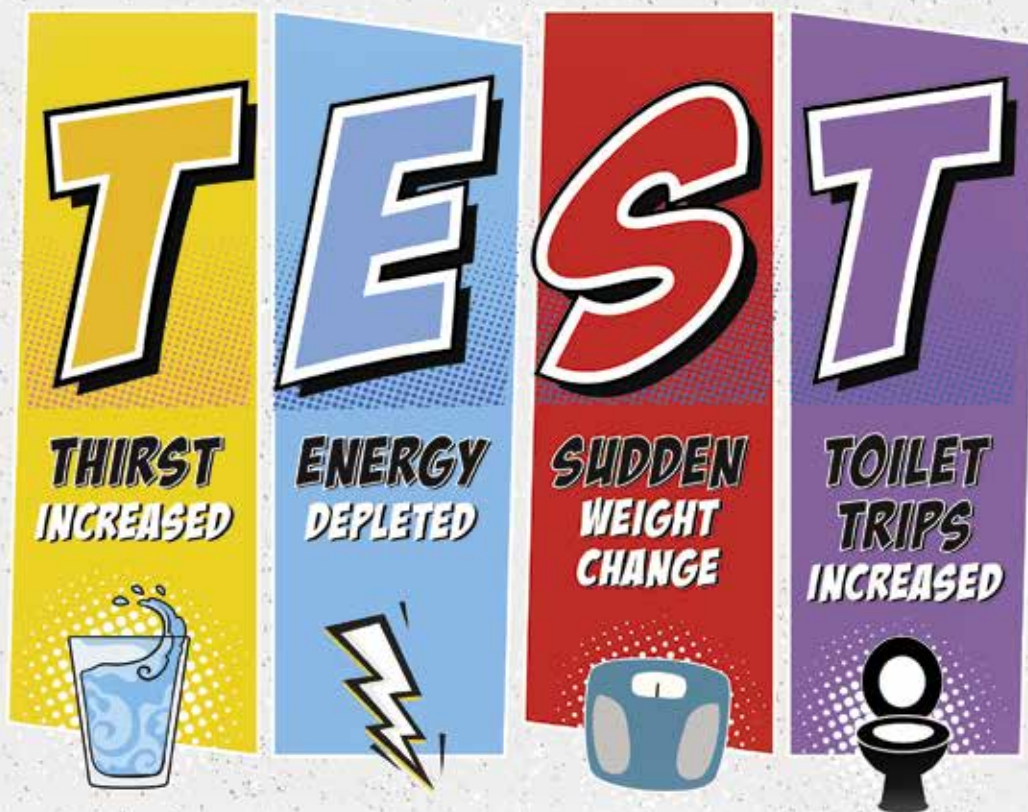


‘Think diabetes’



A new education campaign – ‘Think diabetes’ – encourages earlier presentation to avoid complications such as DKA, writes **Edna Roche**

Type 1 diabetes develops because of a lack of insulin and is fatal without insulin therapy. It can be diagnosed at any age, but in children and adolescents it can develop very quickly. In the early stages the signs in young children can be vague. This makes it difficult for parents to recognise and for doctors to diagnose.

Delayed diagnosis of Type 1 diabetes can result in a condition known as diabetic ketoacidosis (DKA). This is a life-threatening problem. It happens when there is not enough insulin to enable glucose get into cells so glucose builds up in the blood stream. When this happens, cells throughout the body don't get enough glucose, which they need in order to function, and to compensate the lack of glucose in the cells, the body breaks down fat at a rate that is too fast.

The liver processes this fat into ‘ketones’ and this causes the blood to become acidic. This can result in a diabetic coma.

DKA is a medical emergency. The symptoms are dehydration, vomiting, abdominal pain and breathing problems. If untreated, these can progress to coma and can be fatal. In addition to its immediate risks, there is increasing research evidence that the presence of DKA at diagnosis can set children and young people on a path of poor metabolic control and increased risk of diabetes-related complications in young adult life.

The symptoms of Type 1 diabetes can be subtle. Parents and health professionals need to “think diabetes” and work within our community to reduce the number of children and young people presenting with DKA.

Ireland has a high incidence rate of Type 1 diabetes in children and adolescents. Our country is in the top 25% for diabetes incidence worldwide. The number of new cases in children under 15 years in Ireland increased substantially from 16.3 cases/100,000/year in 1997 to 27.1 cases/100,000/year in 2018.

However, in keeping with a number of other high incidence countries, our rate of diabetes appears to be stabilising, but still remains at this high incidence rate. Annually, there are on average 285 new cases of Type 1 diabetes in those under 15 years.

Type 1 diabetes is an autoimmune condition where those with a genetic predisposition interact with one or more environmental agents. This causes the body to attack and destroy its own

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insulin producing pancreatic cells, which leads to insulin deficiency. Despite great advances and much research, the cause is not yet fully understood.

While there is the genetic element to the disease, only about one in 10 diagnosed Irish children have a history of Type 1 diabetes in a parent or sibling. A diagnosis is a bolt out of the blue for most families.

Type 1 diabetes has a number of stages in development and by the time symptoms show, a large part of the pancreas will have been destroyed. Symptoms may have only been seen for two to three weeks or less before it is clear that there is something serious going on and a diagnosis is made.

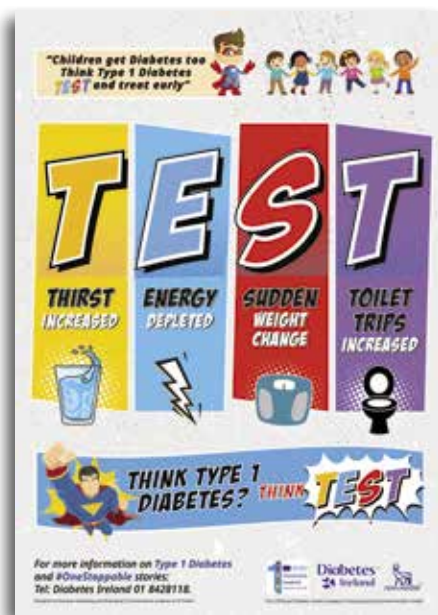
If when diabetes is developing there is an associated infection causing insulin resistance, the effects of the insulin deficiency becomes more extreme and the symptom duration shortens. Where there is pneumonia, influenza or another significant infection as well, this can result in rapid development of life-threatening DKA.

The main symptoms of Type 1 diabetes are; passing frequent large amounts of urine, an extreme thirst, lack of energy and weight loss. Other additional symptoms to look out for are bed wetting in a previously toilet-trained child, or when a child starts needing to get up at night to pass urine, constipation, irritable mood, increased hunger and weight loss despite eating well.

It can be easy to explain these symptoms away. They could be due to all sorts of reasons; urinary tract infections, being generally upset, thirst due to hot weather, pain because of a possible appendicitis or another abdominal problem.

Children under two are particularly at risk, with vague symptoms and an inability to explain what's wrong.

Unfortunately, delayed diagnosis in childhood diabetes can often be due to families waiting to seek help due to the vagueness of the symptoms. Parents report delaying seeking medical help for diabetes symptoms because they hoped the symptoms would go away, and



Posters and leaflets supporting the 'Think diabetes' campaign are available from www.diabetes.ie. The campaign was developed by final-year advertising and marketing communications students at TU Dublin.

because they perceived their child had been 'well'.

One family described how they only recognised that action was needed when their 18-month-old turned over in the bath to drink the bathwater! Sometimes there may be a delay in getting an appointment with a GP due to the extreme pressure on general practice. Although this is very rarely reported by the families I have met.

Most children and young people presenting to their doctors with symptoms of diabetes will be diagnosed that day. However, some research shows approximately one in five children are not diagnosed at the initial visit with some delayed up to two weeks.

UK research found that almost a quarter of children had multiple contacts with healthcare professionals prior to diagnosis. In almost half the cases of delayed diagnosis, the reason for the delay was waiting for additional tests. DKA was more frequent in those where diagnosis was delayed.

A simple blood and urine check can help exclude or confirm the diagnosis. In various international studies looking

at over 24,000 children, almost 40% of those with DKA had been seen at least once by a doctor before diagnosis. These were missed opportunities.

The required treatment of DKA is intensive, generally involving intravenous insulin, fluid and electrolytes along with intensive monitoring and frequent blood tests. It also means a longer stay in hospital.

On the other hand, a new diagnosis of diabetes which has not progressed to DKA has a very different course and possible outcome. Monitoring is much less intense and less invasive. Families are less stressed, diabetes education and training can commence sooner and the hospital stay is shorter.

Currently all children and young people with new onset diabetes are admitted to hospital in Ireland to commence treatment and for diabetes education of both the child and family.

The Irish Childhood Diabetes National Register in collaboration with Diabetes Ireland launched a Type 1 diabetes health promotion campaign (supported by Novo Nordisk) earlier this year, to raise awareness of the symptoms in our community, to encourage earlier presentation and to reduce the frequency of DKA at diagnosis. We believe this will have a significant impact on the health and wellbeing of those with Type 1 diabetes both in the short- and long-term.

The focus of our campaign is to encourage people to 'Think diabetes', to consider the diagnosis, come forward for "TESTing" and treat early. The acronym "TEST" is a reminder of the key diabetes symptoms:

- T – increased thirst
- E – energy reduced
- S – sudden weight change (weight loss)
- T – toilet trips increased.

For further information visit Diabetes Ireland at www.diabetes.ie

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