Fact sheet

'YourSAY Glucose Monitoring' Study

SUMMARY OF KEY FINDINGS

The *'YourSAY: Glucose Monitoring'* online survey investigated glucose monitoring behaviours and attitudes. The survey was completed by 704 Australian adults, aged 18-70 years, who were either diagnosed with type 1 diabetes (n=592) or type 2 diabetes (n=112), and currently using insulin therapy (injections or a pump), and not currently using a continuous glucose monitoring device.

'MOST IMPORTANT' ASPECTS OF DIABETES MANAGEMENT

The three most impact aspects of diabetes management are:

Type 1 diabetes respondents:

1. Taking insulin doses (59%)
2. Checking blood glucose levels (21%)
3. Managing hypoglycaemia (9%)

Type 2 diabetes respondents

1. Taking insulin doses (52%)
2. Managing diet (20%)
3. Checking blood glucose levels (15%)

- Checking blood glucose levels was ranked as the most important aspect of diabetes management by 1 in 5 participants with type 1 diabetes and 1 in 7 participants with type 2 diabetes

DAILY BLOOD GLUCOSE MONITORING

- 100% of type 1 respondents and 90% of type 2 respondents check their blood glucose every day
- The average number of blood glucose checks per day among Australian adults:
  - Type 1 respondents: 6
  - Type 2 respondents: 3
- Percentage who report not 'always' checking their blood glucose as recommended by their GP:
  - Type 1 respondents: 60%
  - Type 2 respondents: 63%

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KEY MOTIVATORS

The main reasons that people check their blood glucose levels include:

	Type 1	Type 2
To adjust insulin	93%	57%
When feeling unwell	91%	82%
To avoid hyperglycaemia[i]	89%	71%
To avoid hypoglycaemic episodes[ii]	87%	70%
For peace of mind	84%	82%

HYPOGLYCAEMIA & HYPERGLYCAEMIA – FREQUENCY AND AWARENESS

Type 1 diabetes respondents:

- 82% have experienced a self-treated hypoglycaemia (hypo) episode in the past week
- 2.5 episodes – average number of hypos experienced weekly
- Of those, nearly half (49%) report experiencing a hypo during sleep
- 45% had hyperglycaemia more than six times in past week
- 64% worry about low or high glucose while sleeping
- More than a quarter have impaired awareness of hypoglycemia (27%)

Type 2 diabetes respondents

- Half (50%) have experienced a self-treated hypo in the past week
- 0.9 episodes - average number of hypos experienced weekly
- Of those, 23% report experiencing a hypo during sleep
- 28% had hyperglycaemia more than six times in past week
- 43% worry about low or high glucose while sleeping
- More than a quarter of respondents have impaired awareness of hypoglycemia (29%)

EXPERIENCE WITH CURRENT BLOOD GLUCOSE METER

When thinking about the effectiveness of current methods of blood glucose monitoring, respondents agreed/ strongly agreed that their current method:

	Type 1	Type 2
Provides reassurance	81%	74%
Gives an accurate snapshot of blood glucose levels	78%	79%
Makes them feel like a 'robot' or 'machine'	30%	30%
Gives them 'freedom in everyday life'	51%	54%
Is discreet	38%	49%

- 57% of type 1 diabetes participants and 50% of type 2 participants felt that their way of managing diabetes lets them lead a 'normal life'

PRIMARY BARRIERS TO GLUCOSE MONITORING

- For many respondents, they are tired of having to check their blood glucose levels (74% of type 1 vs 62% of type 2)
- Checking blood glucose was thought to be a constant reminder that they have diabetes (for 76% of type 1 respondents and 75% of type 2 respondents)
- Respondents also felt that checking blood glucose levels is messy and/or a hassle (46% of type 1 and 30% of type 2)
- The majority of respondents wish they could take time off from their blood glucose monitoring (79% of type 1 and 60% of type 2)
- The aspects of diabetes management which most negatively impacted everyday usual life were:

- Type 1 diabetes respondents: Managing hypoglycaemia / Checking blood glucose / Managing hyperglycaemia
- Type 2 diabetes respondents: Counting carbohydrates / Diet / Managing hyperglycaemia

IMPACT OF BLOOD GLUCOSE MONITORING ON LIFESTYLE

DRIVING & TRAVEL

- 1 in 2 adults with type 1 diabetes and 1 in 3 adults with type 2 diabetes think checking blood glucose levels before driving is important (55% of type 1 and 34% of type 2)
- However, only 1 in 4 adults with type 1 diabetes and 1 in 7 adults with type 2 diabetes always check their blood glucose levels before driving (26% of type 1 and 14% of type 2)
- 1 in 5 people say it is fiddly/ inconvenient to check their levels in a vehicle (24% of type 1 and 23% of type 2)
- 19% of type 2 diabetes respondents do not have test strips or lancets at hand when driving
- For almost half, checking blood glucose levels becomes a problem when they are travelling (47% of type 1 respondents and 49% of type 2 respondents)

WORK

- Over half of respondents forget to check their blood glucose when concentrating on work or in a meeting (51% of type 1 and 58% of type 2)
- Checking blood glucose gets in the way of work for 39% of respondents with type 1 diabetes and 28% living with type 2
- 2 in 5 adults with type 1 diabetes (41%) said that checking blood glucose levels makes the working day more demanding
- Remembering to check blood glucose levels can also be a distraction from work for 32% of respondents living with type 1 diabetes and 28% with type 2 diabetes
- 23% of respondents with both type 1 and type 2 diabetes would rather their colleagues/ supervisors did not know that they have to check their blood glucose levels

SPORT AND IMPORTANT OCCASIONS

- Checking blood glucose levels can intrude on important occasions for 57% of respondents with type 1 diabetes and 46% of people with type 2 diabetes
- For 28% of respondents with type 1 diabetes and 15% with type 2 diabetes, glucose monitoring can also interfere with intimacy e.g., date nights, sex life
- While checking blood glucose levels during sport and physical activity is very important for 76% of type 1 respondents and 48% of type 2, it is also very difficult (for 44% of type 1 and 29% of type 2)

THE IDEAL DEVICE

When imagining a new glucose monitoring device, it is extremely important that this device allows respondents to:

	Type 1	**Type 2**
Always maintain a good blood glucose level	84%	70%
Measure blood glucose continuously over 24 hours	75%	60%
No longer have to interrupt activities to do a check	69%	52%
No longer have to carry testing supplies	61%	53%
No longer need a drop of blood	56%	51%
No longer have to prick themselves with a needle	64%	62%

Acknowledgment
The survey was hosted online (www.yoursay.org.au) and recruitment was led by Diabetes Australia and JDRF. The data were analysed independently by The Australian Centre for Behavioural Research in Diabetes, a partnership for better health between Diabetes Victoria and Deakin University.

[i] Hyperglycaemia is when a person's blood glucose level is too high. This can develop over many hours or days.
[ii] Hypoglycaemia (a hypo or low) is a condition that occurs when a person's blood glucose level (BGL) has dropped too low, **below 4mmol/L**.