# Problem Areas In Diabetes (PAID) Scale

**Instructions:** Which of the following diabetes issues are **currently** a problem for you? Tick the box that gives the best answer for you. Please provide an answer for each question.

|      |  | Not a problem | Minor<br>problem | Moderate<br>problem | Somewhat<br>serious<br>problem | Serious<br>problem |
|------|--|---------------|------------------|---------------------|--------------------------------|--------------------|
| 1    | Not having clear and concrete goals for your diabetes care?  | 0 🗌           | □ 1              | 2                   | 3                              | 4                  |
| 2    | Feeling discouraged with your diabetes treatment plan?   | 0 🗌           | □ 1              | 2                   | □ 3                            | 4                  |
| 3    | Feeling scared when you think about living with diabetes?  | 0 🗌           | □ 1              | 2                   | □ 3                            | 4                  |
| 4    | Uncomfortable social situations related to your diabetes care (e.g. people telling you what to eat)? | 0 🗌           | □ 1              | 2                   | □ 3                            | 4                  |
| 5    | Feelings of deprivation regarding food and meals?  | 0 🗌           | 1                | 2                   | 3                              | 4                  |
| 6    | Feeling depressed when you think about living with diabetes?   | 0 🗌           | □ 1              | 2                   | 3                              | 4                  |
| 7    | Not knowing if your mood or feelings are related to your diabetes?                                   | 0 🗌           | □ 1              | 2                   | □ 3                            | 4                  |
| 8    | Feeling overwhelmed by your diabetes?  | 0 🗌           | 1                | 2                   | 3                              | 4                  |
| 9    | Worrying about low blood glucose reactions?  | 0 🗌           | □1               | 2                   | 3                              | 4                  |
| 10   | Feeling angry when you think about living with diabetes?   | 0 🗌           | 1                | 2                   | 3                              | 4                  |
| 11   | Feeling constantly concerned about food and eating?  | 0 🗌           | □ 1              | 2                   | □3                             | 4                  |
| 12   | Worrying about the future and the possibility of serious complications?                              | 0 🗌           | 1                | 2                   | 3                              | 4                  |
| 13   | Feelings of guilt or anxiety when you get off track with your diabetes management?                   | 0 🗌           | 1                | 2                   | 3                              | 4                  |
| 14   | Not accepting your diabetes?   | 0 🗌           | 1                | 2                   | 3                              | 4                  |
| 15   | Feeling unsatisfied with your diabetes physician?  | 0 🗌           | 1                | 2                   | 3                              | 4                  |
| 16   | Feeling that diabetes is taking up too much of your mental and physical energy every day?            | 0 🗌           | □ 1              | 2                   | □ 3                            | 4                  |
| 17   | Feeling alone with your diabetes?  | 0 🗌           | 1                | 2                   | 3                              | 4                  |
| 18   | Feeling that your friends and family are not supportive of your diabetes management efforts?         | 0 🗌           | <b>□</b> 1       | 2                   | □ 3                            | 4                  |
| 19   | Coping with complications of diabetes?   | 0 🗌           | <b>1</b>         | 2                   | 3                              | 4                  |
| 20   | Feeling burned out by the constant effort needed to manage diabetes?                                 | 0 🗌           | □1               | 2                   | □ 3                            | 4                  |
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The Problem Areas In Diabetes (PAID) scale is a wellvalidated, psychometrically robust questionnaire with 20 items.<sup>1</sup> It is sometimes referred to as the PAID-20, to distinguish it from the eleven-item (PAID-11),<sup>2</sup> fiveitem (PAID-5), and one-item (PAID-1) short forms.<sup>3</sup>

## How to Use the PAID in Clinical Practice

Respondents are asked to indicate the degree to which each of the items is currently a problem for them, from 0 (not a problem) to 4 (a serious problem).

Clinically, the PAID can be used two ways:

- 1. Taking note of the higher scoring items and using these to start a conversation (sources of diabetes distress).
- Calculating a total score (e.g., to assess change over time). The total score provides an indication of the severity of diabetes distress.

For tips about using questionnaires, see "Using Questionnaires to Inform Appointments" (pages 10 and 11 in the guide).

#### **Interpretation of Scores**

The scores for each item are summed, then multiplied by 1.25 to generate a total score out of 100.

- Total scores of 40 and above: severe diabetes distress.<sup>4</sup>
- Individual items scored 3 or 4: moderate to severe distress;<sup>4</sup> to be discussed during the appointment following completion of the questionnaire.

- Polonsky WH, Anderson BJ, et al. Assessment of diabetes-related distress. Diabetes Care. 1995;18(6):754-60.
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- Snoek FJ, Kersch NYA, et al. Monitoring of Individual Needs in Diabetes (MIND): baseline data from the cross-national Diabetes Attitudes, Wishes, and Needs (DAWN) MIND study. Diabetes Care. 2011;34(3):601-3.

# **Diabetes Distress Scale (DDS-17)**

**Instructions:** Living with diabetes can sometimes be tough. There may be many problems and hassles concerning diabetes and they can vary greatly in severity. Problems may range from minor hassles to major life difficulties. Listed below are 17 potential problem areas that people with diabetes may experience. Consider the degree to which each of the 17 items may have distressed or bothered you DURING THE PAST MONTH and circle the appropriate number.

Please note that we are asking you to indicate the degree to which each item may be bothering you in your life, NOT whether the item is merely true for you. If you feel that a particular item is not a bother or a problem for you, you would circle 1. If it is very bothersome to you, you might circle 6.

|      |  | Not a problem | Slight<br>problem | Moderate<br>problem | Somewhat<br>serious<br>problem | Serious<br>problem | Very<br>serious<br>problem |
|------|--|---------------|-------------------|---------------------|--------------------------------|--------------------|----------------------------|
| 1    | Feeling that diabetes is taking up too much of my mental and physical energy every day.  | □1            | 2                 | 3                   | 4                              | 5                  | 6                          |
| 2    | Feeling that my doctor doesn't know enough about diabetes and diabetes care.   | □1            | 2                 | 3                   | 4                              | 5                  | 6                          |
| 3    | Not feeling confident in my day-to-day ability to manage diabetes.   | □1            | 2                 | 3                   | 4                              | 5                  | 6                          |
| 4    | Feeling angry, scared, and/or depressed when I think about living with diabetes.   | □1            | 2                 | 3                   | 4                              | □ 5                | 6                          |
| 5    | Feeling that my doctor doesn't give me clear enough directions on how to manage my diabetes.   | <b>□</b> 1    | 2                 | 3                   | 4                              | 5                  | 6                          |
| 6    | Feeling that I am not testing my blood sugars frequently enough.   | <b>□</b> 1    | 2                 | 3                   | 4                              | □ 5                | 6                          |
| 7    | Feeling that I will end up with serious long-term complications, no matter what I do.  | □1            | 2                 | 3                   | 4                              | 5                  | 6                          |
| 8    | Feeling that I am often failing with my diabetes routine.  | 1             | 2                 | 3                   | 4                              | 5                  | 6                          |
| 9    | Feeling that friends or family are not supportive<br>enough of self-care efforts (e.g., planning activities<br>that conflict with my schedule, encouraging me to<br>eat the "wrong" foods).  | □1            | 2                 | 3                   | 4                              | 5                  | 6                          |
| 10   | Feeling that diabetes controls my life.  | 1             | 2                 | 3                   | 4                              | 5                  | 6                          |
| 11   | Feeling that my doctor doesn't take my concerns seriously enough.  | □1            | 2                 | 3                   | 4                              | □ 5                | 6                          |
| 12   | Feeling that I am not sticking closely enough to a good meal plan.   | <b>□</b> 1    | 2                 | 3                   | 4                              | □ 5                | 6                          |
| 13   | Feeling that friends or family don't appreciate how difficult living with diabetes can be.   | □1            | 2                 | 3                   | 4                              | □ 5                | 6                          |
| 14   | Feeling overwhelmed by the demands of living with diabetes.  | □1            | 2                 | 3                   | 4                              | 5                  | 6                          |
| 15   | Feeling that I don't have a doctor who I can see regularly enough about my diabetes.   | □1            | 2                 | □3                  | 4                              | □ 5                | 6                          |
| 16   | Not feeling motivated to keep up my diabetes self management.  | □1            | 2                 | □3                  | 4                              | □ 5                | 6                          |
| 17   | Feeling that friends or family don't give me the emotional support that I would like.  | □1            | 2                 | □3                  | 4                              | □ 5                | 6                          |
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# Type 1 Diabetes Distress Scale (T1-DDS)

Instructions: Living with type 1 diabetes can be tough. Listed below are a variety of distressing things that many people with type 1 diabetes experience. Thinking back over the past month, please indicate the degree to which each of the following may have been a problem for you by circling the appropriate number. For example, if you feel that a particular item was not a problem for you over the past month, you would circle 1. If it was very tough for you over the past month, you might circle 6.

|    |  | Not a problem |   | Moderate<br>problem |   | Serious |   |
|----|--|---------------|---|---------------------|---|---------|---|
| 1  | Feeling that I am not as skilled at managing diabetes as I should be.                          | 1             | 2 | 3                   | 4 | 5       | 6 |
| 2  | Feeling that I don't eat as carefully as I probably should.                                    | 1             | 2 | 3                   | 4 | 5       | 6 |
| 3  | Feeling that I don't notice the warning signs of hypoglycemia as well as I used to.            | 1             | 2 | 3                   | 4 | 5       | 6 |
| 4  | Feeling that people treat me differently when they find out I have diabetes.                   | 1             | 2 | 3                   | 4 | 5       | 6 |
| 5  | Feeling discouraged when I see high blood glucose numbers that I can't explain.                | 1             | 2 | 3                   | 4 | 5       | 6 |
| 6  | Feeling that my family and friends make a bigger deal out of diabetes than they should.        | 1             | 2 | 3                   | 4 | 5       | 6 |
| 7  | Feeling that I can't tell my diabetes doctor what is really on my mind.                        | 1             | 2 | 3                   | 4 | 5       | 6 |
| 8  | Feeling that I am not taking as much insulin as I should.                                      | 1             | 2 | 3                   | 4 | 5       | 6 |
| 9  | Feeling that there is too much diabetes equipment and stuff I must always have with me.        | 1             | 2 | 3                   | 4 | 5       | 6 |
| 10 | Feeling like I have to hide my diabetes from other people.                                     | 1             | 2 | 3                   | 4 | 5       | 6 |
| 11 | Feeling that my friends and family worry more about hypoglycemia than I want them to.          | 1             | 2 | 3                   | 4 | 5       | 6 |
| 12 | Feeling that I don't check my blood glucose level as often as I probably should.               | 1             | 2 | 3                   | 4 | 5       | 6 |
| 13 | Feeling worried that I will develop serious long-term complications, no matter how hard I try. | 1             | 2 | 3                   | 4 | 5       | 6 |
| 14 | Feeling that I don't get help I really need from my diabetes doctor about managing diabetes.   | 1             | 2 | 3                   | 4 | 5       | 6 |
| 15 | Feeling frightened that I could have a serious hypoglycemic event when I'm asleep.             | <b>□</b> 1    | 2 | 3                   | 4 | 5       | 6 |
| 16 | Feeling that thoughts about food and eating control my life.                                   | <b>□</b> 1    | 2 | 3                   | 4 | 5       | 6 |
| 17 | Feeling that my friends or family treat me as if I were more fragile or sick than I really am. | <b>1</b>      | 2 | 3                   | 4 | 5       | 6 |
| 18 | Feeling that my diabetes doctor doesn't really understand what it's like to have diabetes.     | <b>□</b> 1    | 2 | 3                   | 4 | 5       | 6 |
| 19 | Feeling concerned that diabetes may make me less attractive to employers.                      | <b>□</b> 1    | 2 | 3                   | 4 | 5       | 6 |
| 20 | Feeling that my friends or family act like "diabetes police" (bother me too much).             | 1             | 2 | 3                   | 4 | 5       | 6 |

| Feeling that I've got to be perfect with my diabetes management.                        | <b>1</b>  | 2   | 3  | 4  | 5  | 6  |
|---|---|---|--|--|--|--|
| Feeling frightened that I could have a serious hypoglycemic event while driving.        | 1   | 2   | 3  | 4  | 5  | 6  |
| Feeling that my eating is out of control.   | 1   | 2   | 3  | 4  | 5  | 6  |
| Feeling that people will think less of me if they knew I had diabetes.                  | <b>□</b> 1  | 2   | 3  | 4  | 5  | 6  |
| Feeling that no matter how hard I try with my diabetes, it will never be good enough.   | 1   | 2   | 3  | 4  | 5  | 6  |
| Feeling that my diabetes doctor doesn't know enough about diabetes and diabetes care.   | 1   | 2   | 3  | 4  | 5  | 6  |
| Feeling that I can't ever be safe from the possibility of a serious hypoglycemic event. | 1   | 2   | 3  | 4  | 5  | 6  |
| Feeling that I don't give my diabetes as much attention as I probably should.           | 1   | 2   | 3  | 4  | 5  | 6  |
|   | <ul> <li>Feeling frightened that I could have a serious hypoglycemic event while driving.</li> <li>Feeling that my eating is out of control.</li> <li>Feeling that people will think less of me if they knew I had diabetes.</li> <li>Feeling that no matter how hard I try with my diabetes, it will never be good enough.</li> <li>Feeling that my diabetes doctor doesn't know enough about diabetes and diabetes care.</li> <li>Feeling that I can't ever be safe from the possibility of a serious hypoglycemic event.</li> <li>Feeling that I don't give my diabetes as much attention</li> </ul> | management.IFeeling frightened that I could have a serious<br>hypoglycemic event while driving.1Feeling that my eating is out of control.1Feeling that people will think less of me if they knew I<br>had diabetes.1Feeling that no matter how hard I try with my diabetes,<br>it will never be good enough.1Feeling that my diabetes doctor doesn't know enough<br>about diabetes and diabetes care.1Feeling that I can't ever be safe from the possibility of a<br>serious hypoglycemic event.1 | management.III | management.III | management.III | management.III |

The Diabetes Distress Scale (DDS) scale has 17 items (4 subscales and total score) and is used primarily with adults with type 2 diabetes. The T1-DDS has 28 items (7 subscales and total score) designed specifically for type 1 diabetes. Both are psychometrically robust and well validated.

#### How to Use the DDS/T1-DDS in Clinical Practice

Respondents are asked to indicate the degree to which each of the items is currently a problem for them, from 1 (not a problem) to 6 (a very serious problem).

Clinically, the DDS and T1-DDS can be used two ways:

- Taking note of the higher scoring items and/or subscales and using these to start a conversation (sources of diabetes distress).
- 2. Calculating a total score (e.g., to assess change over time). The total score provides an indication of the severity of diabetes distress.

For tips about using questionnaires, see "Using Questionnaires to Inform Appointments" (pages 10 and 11 in the guide).

#### Interpretation of Scores

The DDS<sup>1</sup> yields a total diabetes distress score plus 4 subscale scores, each addressing a different kind of distress (emotional burden, regimen, interpersonal, and physician distress).

- The T1-DDS<sup>2</sup> yields a total diabetes distress score plus 7 subscale scores (powerlessness, management, hypoglycemia, family and friends, physician, negative social perceptions, and eating distress).
- To score, simply add the person's responses to the appropriate items and divide by the number of items in that subscale or all items for the total scale score (see <u>https://diabetesdistress.org/</u> for subscale scoring). Total mean distress scores on the DDS or T1-DDS in the 1–1.9 are considered low distress, scores of 2–2.9 indicate moderate distress, and scores of 3.0 or greater indicate severe diabetes distress.<sup>3</sup>
- Individual items scored 3.0 or greater—"moderate to severe distress"—need to be discussed during the appointment following completion of the questionnaire.

- 1. Polonsky WH, Fisher L, et al. Assessing psychosocial distress in diabetes development of the Diabetes Distress Scale. Diabetes Care. 2005;28(3):626-31.
- Fisher L, Polonski WH, et al., Understanding the sources of diabetes distress in adults with type 1 diabetes. Journal of Diabetes and its Complications. 2015;29(4):572-7
- Fisher L, Hessler D, et al. When is diabetes distress clinically meaningful? Establishing cut points for the Diabetes Distress Scale. Diabetes Care. 2012;35(2):259-264.

# The Hypoglycemia Fear Survey-II (HFS-II W)

**I. Behavior Instructions:** Below is a list of things people with diabetes sometimes do in order to avoid low blood sugar and its consequences. Circle one of the numbers to the right that best describes what you have done during the last 6 months in your daily routine to AVOID low blood sugar and its consequences. (**Please do not skip any!**)

| To a | woid low blood sugar and how it affects me, I                     | Never | Rarely | Sometimes | Often | Almost<br>always |  |
|------|---|-------|--------|-----------|-------|------------------|--|
| 1    | Ate large snacks.   | 0 🗌   | □1     | 2         | 3     | 4                |  |
| 2    | Tried to keep my blood sugar above 150.                           | 0 🗌   | 1      | 2         | 3     | 4                |  |
| 3    | Reduced my insulin when my blood sugar was low.                   | 0 🗌   | □1     | 2         | 3     | 4                |  |
| 4    | Measured my blood sugar six or more times a day.                  | 0 🗌   | □1     | 2         | 3     | 4                |  |
| 5    | Made sure I had someone with me when I went out.                  | 0 🗌   | 1      | 2         | 3     | 4                |  |
| 6    | Limited my out of town travel.                                    | 0 🗌   | □1     | 2         | 3     | 4                |  |
| 7    | Limited my driving (car, truck, or bicycle).                      | 0 🗌   | 1      | 2         | 3     | 4                |  |
| 8    | Avoided visiting friends.   | 0 🗌   | □1     | 2         | 3     | 4                |  |
| 9    | Stayed at home more than I liked.                                 | 0 🗌   | □1     | 2         | 3     | 4                |  |
| 10   | Limited my exercise/physical activity.                            | 0 🗌   | 1      | 2         | 3     | 4                |  |
| 11   | Made sure there were other people around.                         | 0 🗌   | 1      | 2         | 3     | 4                |  |
| 12   | Avoided sex.  | 0 🗌   | □1     | 2         | 3     | 4                |  |
| 13   | Kept my blood sugar higher than usual in social situations.       | 0 🗌   | 1      | 2         | 3     | 4                |  |
| 14   | Kept my blood sugar higher than usual when doing important tasks. | 0 🗌   | □1     | 2         | 3     | 4                |  |
| 15   | Had people check on me several times during the day or night.     | 0 []  | 1      | 2         | 3     | 4                |  |

**II. Worry Instructions:** Below is a list of concerns people with diabetes sometimes have about low blood sugar. Please read each item carefully (do not skip any). Circle one of the numbers to the right that best describes how often in the last 6 months you WORRIED about each item because of low blood sugar.

| Because my blood sugar could go low, I worried about                    | Never | Rarely | Sometimes | Often      | Almost<br>always |
|---|-------|--------|-----------|------------|------------------|
| 16 Not recognizing/realizing I was having low blood sugar.              | 0 🗌   | □1     | 2         | 3          | 4                |
| <b>17</b> Not having food, fruit, or juice available.                   | 0 🗌   | 1      | 2         | <b>□</b> 3 | 4                |
| <b>18</b> Passing out in public.  | 0 🗌   | □1     | 2         | 3          | 4                |
| <b>19</b> Embarrassing myself or my friends in a social situation.      | 0 🗌   | 1      | 2         | <b>□</b> 3 | 4                |
| <b>20</b> Having a hypoglycemic episode while alone.                    | 0 🗌   | □1     | 2         | 3          | 4                |
| <b>21</b> Appearing stupid or drunk.                                    | 0 🗌   | □1     | 2         | 3          | 4                |
| 22 Losing control.  | 0 🗌   | □1     | 2         | 3          | 4                |
| <b>23</b> No one being around to help me during a hypoglycemic episode. | 0 🗌   | □1     | 2         | 3          | 4                |
| <b>24</b> Having a hypoglycemic episode while driving.                  | 0 🗌   | □1     | 2         | □3         | 4                |

| <b>25</b> Making a mistake or having an accident.                        | 0 1 | 2 | 3 | 4 |
|--|-----|---|---|---|
| <b>26</b> Getting a bad evaluation or being criticized.                  | 0 1 | 2 | 3 | 4 |
| <b>27</b> Difficulty thinking clearly when responsible for others.       | 0 1 | 2 | 3 | 4 |
| <b>28</b> Feeling lightheaded or dizzy.                                  | 0 1 | 2 | 3 | 4 |
| <b>29</b> Accidently injuring myself or others.                          | 0 1 | 2 | 3 | 4 |
| <b>30</b> Permanent injury or damage to my health or body.               | 0 1 | 2 | 3 | 4 |
| <b>31</b> Low blood sugar interfering with important things I was doing. | 0 1 | 2 | 3 | 4 |
| <b>32</b> Becoming hypoglycemic during sleep.                            | 0 1 | 2 | 3 | 4 |
| <b>33</b> Getting emotionally upset and difficult to deal with.          | 0 1 | 2 | 3 | 4 |
|  |     |   |   |   |

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#### Background

The Hypoglycemia Fear Survey-II is a 33-item questionnaire with a Behavior Subscale and a Worry Subscale.<sup>1</sup> It was developed to assess specific behaviors people with diabetes engage in to avoid hypoglycemia and its negative consequences and the concerns people with diabetes may have related to their risk of having hypoglycemia.



For tips about using questionnaires, see "Using Questionnaires to Inform Appointments" (pages 10 and 11 in the guide).

## How to Use the HFS-II Fear Survey in Clinical Practice

Respondents are asked to indicate how much they engaged in or worried about each item during the last six months. This timeframe can be adapted. Each item is measured on a five-point scale ranging from 0 (never) to 4 (almost always).

Take note of the higher scoring items (especially scores of 3 and 4) and use these to start a conversation about their worries about hypoglycemia.

## References

 Gonder-Frederick LA, Schmidt KM, et al. Psychometric properties of the Hypoglycemia Fear Survey-II for adults with type 1 diabetes. Diabetes Care. 2011;34(4):801-6.

# Insulin Treatment Appraisal Scale (ITAS)

**Instructions:** The following questions are about your perception of taking insulin for your diabetes. If you do not use insulin therapy, please answer each question from your current knowledge and thoughts about what insulin therapy would be like. Tick the box that indicates to what extent you agree or disagree with each of the following statements (select one option on each line).

|      |   | Strongly disagree | Disagree | Neither<br>agree nor<br>disagree | Agree | Strongly<br>Agree |
|------|---|-------------------|----------|----------------------------------|-------|-------------------|
| 1    | Taking insulin means I have failed to manage my<br>diabetes with diet and pills             | □1                | 2        | 3                                | □ 4   | 5                 |
| 2    | Taking insulin means my diabetes has become much worse                                      | □ 1               | 2        | □ 3                              | 4     | □ 5               |
| 3    | Taking insulin helps to prevent complications of diabetes                                   | □ 1               | 2        | 3                                | 4     | 5                 |
| 4    | Taking insulin means other people see me as a sicker person                                 | □ 1               | 2        | 3                                | 4     | □ 5               |
| 5    | Taking insulin makes life less flexible   | <b>□</b> 1        | 2        | 3                                | 4     | 5                 |
| 6    | I'm afraid of injecting myself with a needle  | □ 1               | 2        | 3                                | 4     | 5                 |
| 7    | Taking insulin increases the risk of low blood glucose levels (hypoglycemia)                | □1                | 2        | 3                                | □ 4   | 5                 |
| 8*   | Taking insulin helps to improve my health   | <b>□</b> 1        | 2        | 3                                | 4     | 5                 |
| 9    | Insulin causes weight gain  | □ 1               | 2        | 3                                | 4     | 5                 |
| 10   | Managing insulin injections takes a lot of time and energy                                  | <b>□</b> 1        | 2        | 3                                | 4     | 5                 |
| 11   | Taking insulin means I have to give up activities I enjoy                                   | <b>□</b> 1        | 2        | 3                                | 4     | 5                 |
| 12   | Taking insulin means my health will deteriorate   | □ 1               | 2        | 3                                | 4     | 5                 |
| 13   | Injecting insulin is embarrassing   | □ 1               | 2        | 3                                | 4     | 5                 |
| 14   | Injecting insulin is painful  | □ 1               | 2        | 3                                | 4     | 5                 |
| 15   | It is difficult to inject the right amount of insulin correctly at the right time every day | □1                | 2        | 3                                | □ 4   | 5                 |
| 16   | Taking insulin makes it more difficult to fulfill my responsibilities (at work, at home)    | 1                 | 2        | □ 3                              | 4     | 5                 |
| 17*  | * Taking insulin helps to maintain good control of blood<br>glucose                         | <b>□</b> 1        | 2        | 3                                | 4     | 5                 |
| 18   | Being on insulin causes family and friends to be more concerned about me                    | □ 1               | 2        | 3                                | 4     | 5                 |
| 19'  | * Taking insulin helps to improve my energy level   | 1                 | 2        | 3                                | 4     | 5                 |
| 20   | Taking insulin makes me more dependent on my doctor   | 1                 | 2        | 3                                | 4     | 5                 |
| * Po | sitive appraisal subscale.  |                   |          |                                  |       |                   |

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The Insulin Treatment Appraisal Scale (ITAS) is a 20-item questionnaire for measuring a person's perceptions of insulin use.<sup>1</sup> The ITAS comprises two subscales:

- positive appraisal (four positive statements about insulin, such as "Taking insulin helps to improve my health")
- > and negative appraisal (16 negative statements about insulin, such as "*Taking insulin is embarrassing*").

## How to Use the ITAS in Clinical Practice

Respondents are asked to indicate their level of agreement with each statement. Items are scored from 1 (strongly disagree) to 5 (strongly agree). The most useful way to use this questionnaire clinically is to "eyeball" the responses to individual items. Positive appraisal subscale items that scored two or lower, and negative appraisal subscale items that scored four or higher indicate likely barriers to insulin use and require further discussion.



For tips about using questionnaires, see "Using Questionnaires to Inform Appointments" (pages 10 and 11 in the guide).

#### **Interpretation of Scores**

**Positive appraisal subscale:** items 3, 8, 17, and 19 are summed to produce a score between 4 and 20, with higher scores indicating more positive attitudes towards insulin.

Positive appraisal subscale items have been marked with an asterisk on the previous page. **Negative appraisal subscale:** all 16 remaining items are summed to produce a score between 16 and 80, with higher scores indicating more negative attitudes to insulin.

**Total score:** a score ranging from 20 to 100 is produced by reverse-scoring the positive items, then adding together all 20 items, with higher scores indicating more negative attitudes towards insulin.

- Although it is possible to calculate a total score on the ITAS, there are no ITAS cut-off values to indicate a presence or severity of psychological barriers. For this reason, calculating a total score is mostly useful only for research purposes or to measure changes over time.
- Research has demonstrated that it is preferable to use the positive and negative appraisal subscale scores separately, rather than the total score.<sup>2</sup>

Many people endorse the benefits of insulin despite having reservations about its use. So, endorsement of positive appraisals of insulin does not suggest an absence of psychological barriers.

- Snoek F, Skovlund S, et al. Development and validation of the insulin treatment appraisal scale (ITAS) in patients with type 2 diabetes. Health and Quality of Life Outcomes. 2007;5(1):69.
- Holmes-Truscott E, Pouwer F, et al. Further investigation of the psychometric properties of the insulin treatment appraisal scale among insulinusing and non-insulin-using adults with type 2 diabetes: results from Diabetes MILES – Australia. Health and Quality of Life Outcomes. 2014;12(1):87.

# Patient Health Questionnaire Nine (PHQ-9)

**Instructions:** For each statement, please tick the box below that best corresponds to your experience in the last two weeks.

| Over the last 2 weeks, how often have you been bothered by any of the following problems? |  | Not at all              | Several<br>days       | More than<br>half the<br>days | Nearly<br>every day |  |  |  |
|---|--|-------------------------|-----------------------|-------------------------------|---------------------|--|--|--|
| 1   | Little interest or pleasure in doing things  | 0                       | <b>□</b> 1            | 2                             | 3                   |  |  |  |
| 2   | Feeling down, depressed, or hopeless   | 0 🗌                     | □ 1                   | 2                             | 3                   |  |  |  |
| 3   | Trouble falling or staying asleep, or sleeping too much  | 0 🗌                     | □ 1                   | 2                             | 3                   |  |  |  |
| 4   | Feeling tired or having little energy  | 0 🗌                     | □ 1                   | 2                             | 3                   |  |  |  |
| 5   | Poor appetite or overeating  | 0 🗌                     | □ 1                   | 2                             | 3                   |  |  |  |
| 6   | Feeling bad about yourself—or that you are a failure or have let yourself or your family down  | 0 🗌                     | □1                    | 2                             | 3                   |  |  |  |
| 7   | Trouble concentrating on things, such as reading the newspaper or watching television  | 0 🗌                     | □1                    | 2                             | 3                   |  |  |  |
| 8   | Moving or speaking so slowly that other people could have<br>noticed? Or the opposite—being so fidgety or restless that<br>you have been moving around a lot more than usual   | 0                       | □ 1                   | 2                             | 3                   |  |  |  |
| 9   | Thoughts that you would be better off dead or of hurting yourself in some way  | 0                       | □1                    | 2                             | 3                   |  |  |  |
| (Of   | fice use only) Total score =   |                         |                       |                               |                     |  |  |  |
|   |  | Not difficult<br>at all | Somewhat<br>difficult | Very<br>difficult             | Extremely difficult |  |  |  |
| pro   | If you checked off any problems, how difficult have these problems made it for you to do your work, take care of things 0 1 2 3 at home, or get along with other people?   |                         |                       |                               |                     |  |  |  |
|   | Developed by Drs. Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke, and colleagues, with an educational grant from Pfizer, Inc. No permission is required to reproduce, translate, display, or distribute. See: <a href="http://www.phgscreeners.com">www.phgscreeners.com</a> |                         |                       |                               |                     |  |  |  |

### Background

The PHQ-9 is a nine-item questionnaire for assessing depressive symptoms and their severity.<sup>1,2</sup> It has been validated for use with people with diabetes.<sup>3</sup> Each of the nine items corresponds with a DSM-5<sup>4</sup> criterion for depression.

It is freely available online in more than 40 languages, quick to administer, and easy to score and interpret. Many of the translations are linguistically valid, but not all have been psychometrically validated against a diagnostic interview for depression<sup>2</sup> and few have been validated in people with diabetes.<sup>5</sup>

### How to Use the PHQ-9 in Clinical Practice

Respondents are asked to indicate how frequently they are bothered by each of the nine items (each describing a different symptom of depression).<sup>1,6</sup> Items are scored on a scale from 0 (not at all) to 3 (nearly every day).<sup>6</sup>

An additional supplementary item (which does not contribute to the total score) can also be asked to evaluate the level of social or occupational difficulty caused by the depressive symptoms. This question appears in the version on the website,<sup>2</sup> and has been included in the questionnaire.

| ~Q |  |
|----|--|
|    |  |
| 4  |  |

For tips about using questionnaires, see "Using Questionnaires to Inform Appointments" (pages 10 and 11 in the guide).

### **Interpretation of Scores**

The scores for each item are summed to generate a total score (range: 0–27).<sup>6</sup> Depressive symptom severity is indicated by the PHQ-9 total score.<sup>7</sup> Generally, a PHQ-9 total score of 10 or more is an indicator of likely depression,<sup>1</sup> and needs to be followed up with a clinical interview.

> If the person scores 1 or more on item 9 (referring to suicidal ideation), further assessment for risk of suicide or self-harm is required, irrespective of the total score.<sup>1</sup>

| PHQ-9<br>total<br>score | Depressive<br>symptom<br>severity              | Proposed treatment<br>actions <sup>6</sup>  |
|-------------------------|--|---|
| 0–4                     | None –<br>minimal                              | None  |
| 5–9                     | Watchful waiting; repeat<br>PHQ-9 at follow-up |   |
| 10–14                   | Moderate                                       | Treatment plan, consider<br>counselling, follow-up, and/<br>or pharmacotherapy  |
| 15–19                   | Moderately severe                              | Active treatment with pharmacotherapy and/or psychotherapy  |
| 20–27                   | Severe   | Immediate initiation of<br>pharmacotherapy and,<br>if severe impairment or<br>limited response to therapy,<br>expedited referral to a<br>mental health specialist<br>for psychotherapy and/or<br>collaborative management |

## **Additional Information**

Alternative cut-off values: For people with diabetes in specialty clinics (usually those with severe complications), a cut-off value of 12 or more has been recommended due to the overlap between symptoms of depression and diabetes.<sup>8</sup> For older people with diabetes in general practice, a cut-off of 7 or more has been recommended.<sup>9</sup>

## Short Form—PHQ-2

- The PHQ-2<sup>10</sup> consists of two items from the PHQ-9: item 1, "Little interest or pleasure in doing things," and item 2, "Feeling down, depressed, or hopeless."
- > The timeframe and response options are the same as for the PHQ-9.
- The two item scores are summed to form a total score. Total scores of 3 or more warrant further assessment for depression.<sup>6</sup>

- 1. Kroenke K, Spitzer RL, et al. The PHQ-9: validity of a brief depression severity measure. Journal of General Internal Medicine. 2001;16(9):606-13.
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- Roy T, Lloyd C, et al. Screening tools used for measuring depression among people with type 1 and type 2 diabetes: a systematic review. Diabetic Medicine. 2012;29(2):164-75.
- Spitzer RL, Williams JBW, et al. Instruction manual: instructions for Patient Health Questionnaire (PHQ) and GAD-7 measures. [cited 5 February 2015]. Available from: <u>www.phqscreeners.com</u>.
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- van Steenbergen-Weijenburg KM, de Vroege L, et al. Validation of the PHQ-9 as a screening instrument for depression in diabetes patients in specialized outpatient clinics. BioMed Central Health Devices Research. 2010;10(1):235.
- Lamers F, Jonkers C, et al. Summed score of the Patient Health Questionnaire-9 was a reliable and valid method for depression screening in chronically ill elderly patients. Journal of Clinical Epidemiology. 2008;61(7):679-87.
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# Generalized Anxiety Disorder Seven (GAD-7)

**Instructions:** For each statement, please tick the box below that best corresponds to your experience in the last 2 weeks.

| Over the last 2 weeks, how often have you been bothered by any of the following problems? |  | Not at all              | Several<br>days    | More than<br>half the<br>days | Nearly<br>every day |  |  |  |
|---|--|-------------------------|--------------------|-------------------------------|---------------------|--|--|--|
| 1   | Feeling nervous, anxious, or on edge   | 0 🗌                     | 1                  | 2                             | 3                   |  |  |  |
| 2   | Not being able to stop or control worrying   | 0 🗌                     | <b>□</b> 1         | 2                             | 3                   |  |  |  |
| 3   | Worrying too much about different things   | 0 🗌                     | □ 1                | 2                             | 3                   |  |  |  |
| 4   | Trouble relaxing   | 0 🗌                     | 1                  | 2                             | 3                   |  |  |  |
| 5   | Being so restless that it is hard to sit still   | 0 🗌                     | □ 1                | 2                             | 3                   |  |  |  |
| 6   | Becoming easily annoyed or irritable   | 0 🗌                     | □ 1                | 2                             | 3                   |  |  |  |
| 7   | Feeling afraid, as if something awful might happen   | 0 🗌                     | □ 1                | 2                             | 3                   |  |  |  |
| (Of   | fice use only) Total score =   |                         |                    |                               |                     |  |  |  |
|   |  | Not difficult<br>at all | Somewhat difficult | Very<br>difficult             | Extremely difficult |  |  |  |
| pro   | ou checked off <b>any</b> problems, how <b>difficult</b> have these<br>blems made it for you to do your work, take care of things<br>nome, or get along with other people?   | 0                       | <b>□</b> 1         | 2                             | □ 3                 |  |  |  |
| Dev<br>requ   | eveloped by Drs. Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke, and colleagues, with an educational grant from Pfizer, Inc. No permission is<br>equired to reproduce, translate, display, or distribute. See: <u>www.phqscreeners.com</u> |                         |                    |                               |                     |  |  |  |

The GAD-7<sup>1-3</sup> is a seven-item questionnaire for assessing anxiety symptoms and their severity. It has satisfactory psychometric properties for screening for generalized anxiety disorder, panic disorder, and social anxiety disorder.<sup>1,3</sup>

It is freely available online in more than 30 languages, quick to administer, and easy to score and interpret. Many of the translations are linguistically valid, though few have been psychometrically validated.<sup>4</sup>

## How to Use the GAD-7 in Clinical Practice

Respondents are asked to indicate how frequently they are bothered by each of the seven items (each describing a different symptom of generalized anxiety disorder).<sup>2,4</sup> Items are scored on a scale from 0 (not at all) and 3 (nearly every day).<sup>4</sup>

An additional supplementary item (which does not contribute to the total score) can also be asked to evaluate the level of social or occupational difficulty caused by the anxiety symptoms. This question appears in the original GAD-7 publication<sup>2</sup> but not in the version on the website,<sup>5</sup> and has been included in the questionnaire.



For tips about using questionnaires, see "Using Questionnaires to Inform Appointments" (pages 10 and 11 in the guide).

#### **Interpretation of Scores**

The scores for each item are added to generate a total score (range: 0–21).<sup>4</sup> Anxiety symptom severity is indicated by the GAD-7 total score.<sup>4</sup> Generally, a GAD-7 total score of 10 or more is an indicator of likely anxiety disorder,<sup>3,4</sup> and needs to be followed up with a clinical interview.

| PHQ-9 total score | Depressive symptom severity |
|-------------------|-----------------------------|
| 0–4               | None – minimal              |
| 5–9               | Mild                        |
| 10–14             | Moderate                    |
| 15–19             | Moderately severe           |
| 20–27             | Severe                      |

### Short Form-GAD-2

- The GAD-2<sup>1,3</sup> consists of two items from the GAD-7: item 1, "Feeling nervous, anxious, or on edge," and item 2, "Not being able to stop or control worrying."
- > The timeframe and response options are the same as the GAD-7.
- The two item scores are summed to form a total score. Total scores of 3 or more warrant further assessment for anxiety disorder.<sup>1,3</sup>

- Kroenke K, Spitzer RL, et al. Anxiety disorders in primary care: prevalence, impairment, comorbidity, and detection. Annals of Internal Medicine. 2007;146(5):317-25.
- Spitzer RL, Kroenke K, et al. A brief measure for assessing generalized anxiety disorder: the GAD-7. Archives of Internal Medicine. 2006;166(10):1092-7.
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- 4. Spitzer RL, Williams JBW, et al. Instruction manual: instructions for Patient Health Questionnaire (PHQ) and GAD-7 measures. [cited 5 February 2015]. Available from: <u>www.phqscreeners.com</u>.
- Pfizer. Patient Health Questionnaire (PHQ) Screeners. [cited 15 May 2014]. Available from: <u>www.</u> <u>phqscreeners.com</u>.