

ASSESSMENT OF GROSS MOTOR CHILD DEVELOPMENT USING THE
DENVER II DEVELOPMENTAL SCREENING TEST

By

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ABSTRACT

Background: This research study investigates the Denver Developmental Screening Test, 2nd edition (DDST-II), Gross Motor section to determine if it is an accurate measure of milestones children should accomplish within their first six years of life. There has not been many studies done on the DDST-II, and I would like to try to determine its applicability and usefulness. *Methods:* The DDST-II testing procedures and timeline were used on a child born May 25th, 2005 to determine if development of gross motor skills were achieved in a timely manner. The child was tested and observed in monthly increments, starting at the first month of life and documentation of his progression of skills was made throughout an 8-month period. *Results:* For the 8-month period, 11 skills were achieved with great accuracy. Only 1 of the 11 skills tested was not reached at the specified time frame given by the DDST-II timeline. That skill was achieved though, within 2 weeks of when it was supposed to. *Conclusion:* Throughout an 8 month period, the DDST-II Gross Motor section was found to be a very effective and accurate tool in assessing the timing of development in a normal child.

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Background: The Denver II Developmental Screening Test (DDST-II) is a widely used assessment for examining children ages 0-6 years old as to their developmental progress. The DDST-II is designed to be used on well children. According to the developmental screening lab 2 notes, “The test is very valuable in screening asymptomatic children for possible problems, in confirming intuitive suspicions with an objective measure, and in monitoring children at risk for developmental problems, such as those who have experienced perinatal difficulties ¹.” It was first published in 1967 to help health providers detect potential developmental delays in children ¹. The DDST is a widely used screening test, and it was revised, restandardized, and modified recently into the Denver II ¹. It was named the “Denver” for the fact that this screening test was created at the University of Colorado Medical Center in Denver, Colorado.

The DDST-II is a 125-itemized test standardized to measure and determine whether a child is developing normally. It includes a set of questions for parents and tests for the child on twenty simple tasks and items that fall into four categories. The first one being Personal-Social (25 items), the second one Fine Motor Adaptive (29 items), the third one is Language (39 items), and finally the one I will be concerned with and testing the applicability and usefulness of is Gross Motor (32 items).

A Prescreening Developmental Questionnaire (PDQ-II) (app. C) has been created to help parents quickly identify whether their children need further assessment ². The PDQ-II is a way for parents to prescreen their children easily through a series of 91 questions taken from the DDST-II. It was designed to give parents a quick assessment to determine if their children have non-normal scores and need to investigate further with a full DDST-

II. The PDQ-II uses the same norms as the DDST-II². The questionnaires are divided by age range (0-9 months, 9 to 24 months, 2 to 4 years, and 4 to 6 years)².

There are a number of other behavioral assessments for infants and young children. Some of these include: The Neonatal Behavioral Assessment Scale (NBAS), The Early Language Milestone (ELM) scale for children 0-3 years of age, The Clinical Adaptive Test (CAT), and many others³.

The DDST-II Gross Motor Skills category was used to assess and determine if a child from birth to 8 months of age developed properly and in a timely fashion according to the tests norms and values. This case study was not used to necessarily determine the child's development, but rather if the DDST-II's norms and values of progression of gross motor skills were accurate.

Methods: The procedures used to test and observe the child is contained in the attached DDST-II testing procedures for gross motor skills (app. A). Each individual gross motor skill will be explored and there will be an explanation of what the test expects and what the child was able to do. The child was born May 25th, 2005, and so testing and observations began exactly one month after the birth. The testing continued on exactly every monthly anniversary of the birth of the child. Testing and observation of the child was done within 30-60 minutes upon his first morning waking, and then again within 30-60 minutes after the child's first nap. The testing and observations were done this way to ensure that the child was fresh and alert, thus giving the child the best chance for success. The gross motor skills the child was able to accomplish and at what month was then recorded. Assessment of the child's progression was done using the DDST-II

timeline (app. B). This was done on a monthly basis for 8 months. Luckily the child was never feeling under the weather during any of the testing days. For future reference the child tested will be called Infant A.

Results: Through the use of the testing materials procedures contained within the DDST-II Gross Motor section, a comparison of the child's actual achievements was made with the timeline. The timeline suggests that a child should be able to have equal movements of the arms and legs between 0 and 1 ½ months of age. Infant A was able to do it at the 1 month testing session. It also shows that while lying on their stomach, infants should be able to momentarily lift their head so that their chin is off of the surface between 0 and 1 ½ months of age. Infant A was able to do this at the 1 month testing session. The timeline suggests that between 0 and 2 ½ months a child should be able to lift their head up 45 degrees while lying on their stomach on a flat surface. Infant A was not able to do it the first month, but was able to at the second month of testing. The timeline suggests that at between 1 ½ and 3 ½ months a child should be able to lift their head up to 90 degrees while lying on a flat surface. Infant A was not able to do it until 4 months of age. According to the timeline a child between the ages of 1 ½ and 3 ¾ months should be able to hold their head steady with no bobbing motion for a couple of seconds while someone is holding them in a sitting position. Infant A accomplished this skill at 2 months of age. The timeline shows that a child between the ages of 1 ¾ and 4 ½ months of age should be able to bear weight on their legs for several seconds with someone holding them loosely in a standing position. Infant A was able to do it at the 2 month testing session. The timeline shows that at between 2 and 4 ½ months of age a

child should be able to lie on their stomach and lift their chest and head off of the table using the support of their outstretched arms, so that they are looking straight ahead. Infant A was able to do it at the 4 month testing session. Being able to roll over is suggested to be accomplished at between 2 and 5 ½ months. Infant A had this task mastered at the 4 month testing session. Pull to sit, with no head lag (as demonstrated in app. A) should be accomplished between 2 ¾ and 6 ¼ months. Infant A accomplished it at the 5 month testing session. Sitting with no support is shown between 5 ½ and 6 ¾ months of age on the timeline. Infant A did it at the 5 month testing session. Standing for 5 seconds while holding to a solid object is between 6 ¼ and 8 ½ months of age of the timeline. Infant A was able to demonstrate this at the 6 month testing session. No new tasks could be performed at the 7 and 8 month testing sessions. 8 months of age is where the testing and observations ended. There was enough data in this 8-month period of testing and observations to analyze the DDST-II Gross Motor section.

Conclusions: The DDST-II is a very valuable tool for pediatricians to assess the developmental milestones in an infant between 0 and 6 years old. Infant A was able to perform all but 1 of the 11 gross motor skills within the timeline suggested. The one skill that Infant A was not able to do within the time frame suggested was accomplished within 2 weeks of it.

According to the Department of Pediatrics, Vanderbilt University School of Medicine, the DDST-II was published without evidence of its accuracy⁴. The Department decided to undertake its own study to determine if it is indeed accurate. The study was undertaken with 104 children between 3 and 72 months of age attending one of five day

care centers⁴. The children were administered individual measures of intelligence, speech-language, achievement, and adaptive behavior⁴. A second psychological examiner, blind to the outcome of the diagnostic tests, administered the DDST-II. According to this study the DDST-II identified 17% of the children had developmental delays. It correctly identified 83% and so had high rates of sensitivity⁴. However, more than half the “normal” children also received abnormal, questionable, or untestable DDST-II scores, thus the test had limited specificity (43%), and a high overreferral rate⁴. This study suggests that the developers of the DDST-II should investigate into further revision of the current test.

There are some things parents should keep in mind when they are assessing their child’s development using any screening test, including the DDST-II. The first thing is that for each milestone suggested in the screeners, there is a range of ages during which a child will normally meet it. For example, some children may walk as early as 11 months or sooner, while others may not accomplish this until they are about 15 months old, and that is still considered normal⁵. Developmental milestones are determined by the average age at which children will attain the specific skill. Statistically, about 3% of children will not meet them on time, while only about 15-20% will actually have abnormal development, according to Keep Kids Healthy Online⁵. The rest will eventually develop normally, maybe just a bit later than expected⁵.

According to my study, pediatricians should find the DDST-II a very valuable tool to screen for developmental delays in children. The earlier that a developmental delay is caught, the better the prognosis for treatment is for the delay, or the longer the child has to adapt to and overcome the possible deficits he or she may encounter in life.

References

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2. Preschool Screening for Developmental Problems. 17 Jan. 2006. Canadian Task Force on Preventive Health Care. <http://www.ctfphc.org/Full_Text/Ch26full.htm>.
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4. Glascoe FP, Byrne KE, Ashford LG, Johnson KL, Chang B, and Strickland B
“Accuracy of the Denver-II in Developmental Screening”, Pediatrics Vol. 89
No. 6 June 1992, pp. 1221-25.
5. Developmental Delays. 17 Jan. 2006. Keep Kids Healthy. 26 Jan. 2006
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APPENDIX A

DDST-II TESTING PROCEDURES FOR GROSS MOTOR SKILLS

D. GROSS MOTOR

Equal Movements

While the child is lying on his/her back, watch the activity of the child's arms and legs.

Pass if the child moves arms and legs equally. Fail if one arm and/or leg does not move as much as the other.

Lift Head (R)

Place the child on his/her stomach on a flat surface.

Pass if the child at least momentarily lifts his/her head so that the chin is off the surface without being turned to either side or if the parent reports that the child can do this.

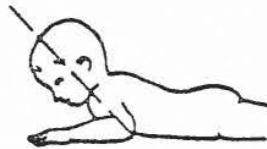


Head Up 45 Degrees

Place the child on his/her stomach on a flat surface.

Pass if the child lifts his/her head so that his/her face makes an approximate 45 degree angle with the surface for at least several seconds. The child will be looking at the table in front of him/her.

A pass of *Head Up 45 Degrees* also passes *Lift Head*.

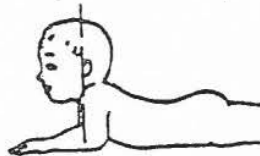


Head Up 90 Degrees

Place the child on his/her stomach on a flat surface.

Pass if the child lifts head and chest up so that his/her face makes a 90 degree angle with the surface for at least several seconds. The child will be looking straight ahead and will usually be supported on his/her forearms.

A pass of *Head Up 90 Degrees* also passes *Head Up 45 Degrees* and *Lift Head*.



Sit, Head Steady

Hold the child in a sitting position.

Pass if the child holds his/her head upright and steady with no bobbing motion for at least several seconds.

Bear Weight on Legs

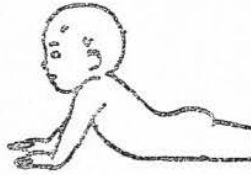
Hold the child in a standing position so that his/her feet rest on the table. Slowly loosen your hand support to allow the child's weight to be supported on his/her legs and feet.

Pass if the child supports his/her weight on the legs for several seconds, or pushes with his/her feet and legs against the table.

Chest Up, Arm Support

Place the child on his/her stomach on a flat surface.

Pass if the child lifts his/her head and chest off the surface using the support of outstretched arms, so that he/she is looking straight ahead or up.



Roll Over (R)

During the test, notice if the child rolls from back to stomach or from stomach to back. If this is not seen, ask the parent if the child has rolled completely over, from back to stomach or from stomach to back, at least twice.

Pass if you see the child roll completely over or if the parent has seen the child do this at least twice.

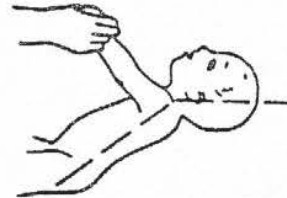
Pull to Sit, No Head Lag

Place the child on his/her back. Grasp the child's hands and wrists and gently and slowly pull him/her to a sitting position. If there is immediate head lag, do not continue to pull the child all the way to the sitting position.

Pass if the child's head does not lag at any time while the body is being pulled up. The child will also "pull" with you, using shoulder and neck muscles.



PASS



FAIL

Sit, No Support

Hold the child in a sitting position on the table. Making sure the child does not fall, slowly remove your hands.

Pass if the child sits alone for 5 seconds or more. The child may put hands on legs or on the table for support.

Stand Holding On

Place the child in a standing position holding on to a solid object (not a person).

Pass if the child stands holding on for 5 seconds or more.

Pull to Stand

Place the child sitting on the floor beside a chair or low table. Encourage him/her to stand up by putting a toy on the seat of the chair or on the table.

Pass if the child pulls himself/herself to a standing position.

Get to Sitting (R)

While the child is lying down (on back or stomach), crawling, or standing holding on, encourage him/her to get into a sitting position. If this is not seen, ask the parent if the child can get into a sitting position by himself/herself.

Pass if you see the child do this or if the parent reports that the child can do this.

Stand - 2 Seconds

Place the child standing on the floor. After the child seems balanced, try to remove the support.

Pass if you see the child stand without any support for 2 or more seconds.

Stand Alone

Administration procedure is the same as for *Stand - 2 Seconds*.

Pass if the child stands alone 10 or more seconds.

A pass of *Stand Alone* also passes *Stand - 2 Seconds*, and *Stand Holding On*.

Stoop and Recover

While the child is standing on the floor away from all support, place a toy or ball on the floor and encourage the child to pick it up.

Pass if the child stoops to pick up the object and returns to standing without holding on or sitting down.

Walk Well

Watch the child walk.

Pass if the child has good balance, rarely falls, and does not tip from side to side.

Walk Backwards (R)

Encourage the child to walk backwards by demonstration, or notice if the child does this during the test. If you do not see the child do this, ask the parent if the child walks backwards, possibly when pulling a toy or opening a door or drawer.

Pass if the child takes several steps backwards without sitting down, or if the parent reports that the child can do this.

Runs

Encourage the child to run, possibly by throwing the ball for him/her to chase.

Pass if the child can run (not fast walk) smoothly without falling or tripping.

Walk Up Steps (R)

Ask the parent how the child gets up steps.

Pass if the child walks up steps. The child may use a rail or wall for support, but may not hold onto a person.

Kick Ball Forward

Place the ball about 6 inches in front of the standing child. Tell him/her to kick it. You may show the child how to do this.

Pass if the child kicks the ball forward without holding on to any support. Sliding or pushing the ball with the foot, hitting the ball on the back swing, or stepping on the ball are failures.

Jump Up

Tell the child to jump. You may show the child how to do this.

Pass if the child jumps, getting both feet off the floor at the same time. The child does not have to land in the same spot. The child may not run before jumping, or hold on to any support.

Throw Ball Overhand

Give the child the ball and stand at least 3 feet from him/her. Tell the child to throw the ball to you using an overhand throw. You may show the child how to throw overhand. Three trials may be given.

Pass if the child throws the ball within arm's reach of you between your knees and head, using an overhand throw (not sideways, or underhand). The ball may bounce before it reaches you if it was between your knees and head before beginning the downward arc. Throwing the ball directly downward or away from you are failures.

Broad Jump

Place a piece of paper (8-1/2" by 11") on the floor and show the child how to do a standing broad jump across the width of the paper (8-1/2"). Then tell the child to do it. You may give 3 trials, if necessary.

Pass if the child jumps, with both feet together, over the paper without touching it.

Balance-Each Foot 1, 2, 3, 4, 5, 6 seconds

Have the child stand away from all support. Show the child how to balance on one foot. Tell him/her to do this as long as he/she can, giving 3 trials (unless he/she balances for 6 seconds or more on the first trial). Record the longest time of these three trials. Then tell the child to balance on the other foot, giving 3 trials if necessary. Record the longest time of these three trials.

Pass the appropriate balancing item or items according to the shortest of these 2 recorded times. (Example: If the longest time for the right foot is 3 seconds and the longest time for the left foot is 5 seconds, the child passes balancing items for 1, 2, and 3 seconds.)

A pass of 2, 3, 4, 5, or 6 seconds also passes all lower items. (For example, a pass of *Balance-Each Foot - 3 Seconds* also passes *Balance - Each Foot 1 Second* and *Balance - Each Foot 2 Seconds*.)

Hops

With the child away from all support, tell him/her to hop on one foot. You may show the child how to do this.

Pass if the child hops on one foot 2 or more times in a row, either in place or over a distance, without holding on to anything.

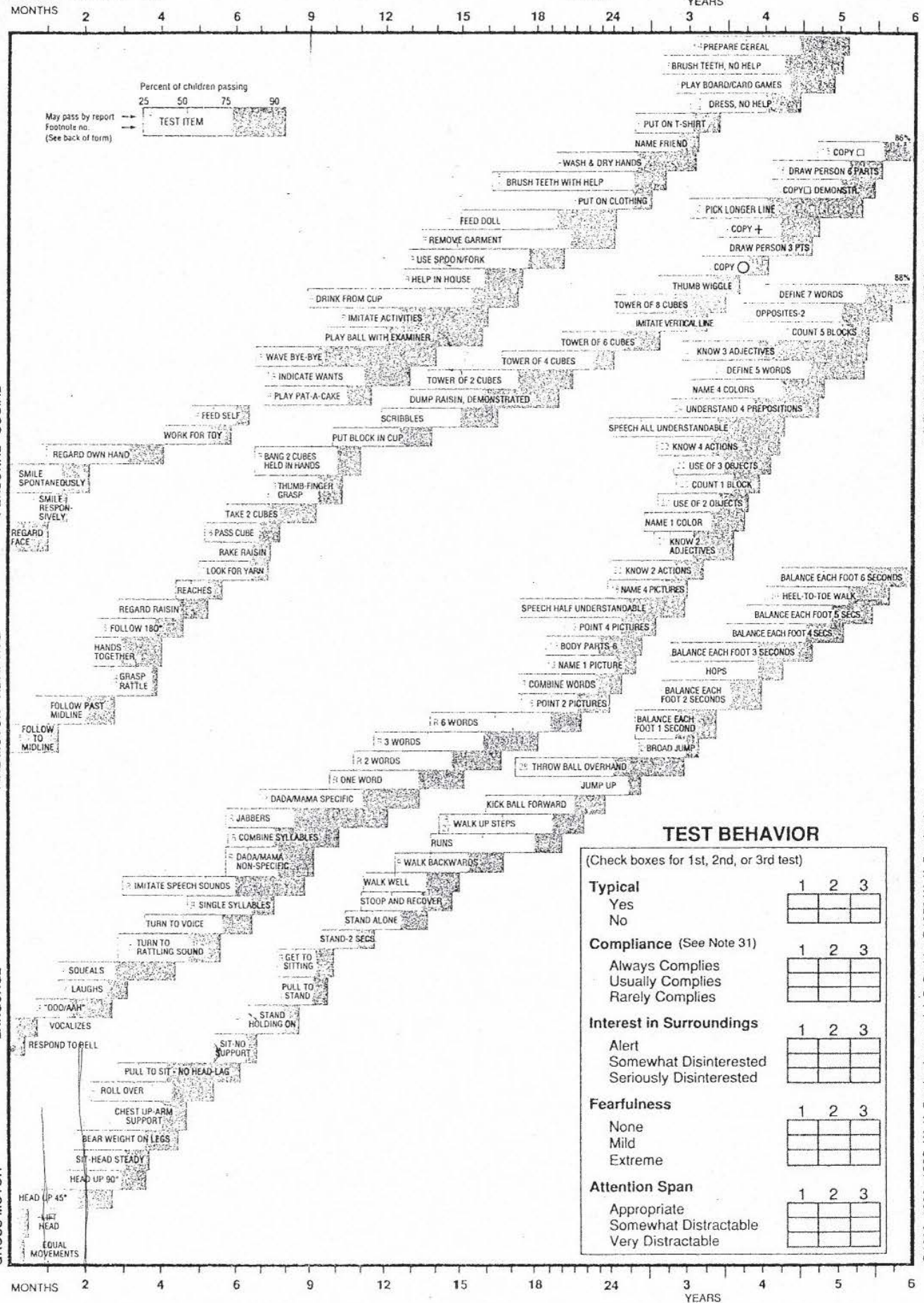
Heel-to-Toe Walk

Demonstrate how to walk in a straight line placing the heel of one foot in front of and touching the toe of the other. Walk about 8 steps like this and then tell the child to do it. (You may compare this to a tight-rope walk.) If necessary, give several demonstrations. Allow 3 trials if needed.

Pass if the child can walk in a straight line for 4 or more steps placing the heel no more than 1 inch in front of the toe, without holding on to any support.

APPENDIX B
DDST-II TIMELINE

Denver II



FOR USE OF THIS FORM, SEE AR 600-75

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APPENDIX C

PRESCREENING DEVELOPMENTAL QUESTIONNAIRE
(PDQ-II)

**REVISED (1986) DENVER PRESCREENING DEVELOPMENTAL QUESTIONNAIRE (R-PDQ)*
INFORMATION FOR PROFESSIONALS**

original Denver Prescreening Developmental Questionnaire (PDQ) has been revised to simplify monitoring and screening of children's development. The R-PDQ is designed to achieve three goals: 1) to make parents more aware of the development of their children; 2) to document the developmental progress of individual children in a systematic manner; and 3) to facilitate earlier identification of children whose development may be delayed.

INSTRUCTIONS FOR PREPARATION OF THE R-PDQ

- Use the following guide to determine which of the four R-PDQ forms is appropriate for the child:
Orange (0-9 MONTHS); Purple (9-24 MONTHS); Gold (2-4 YEARS); White (4-6 YEARS)
- Select the appropriate form and write the child's name, today's date, and the child's birthdate at the top of the R-PDQ form.
- Complete the age calculation in the box on the front of the form. Figure the number of days first, then the number of months, and finally the number of years. Should it become necessary to "borrow" when subtracting, 1 month borrowed adds 30 days to the "day" column and 1 year borrowed adds 12 months to the "month" column. (See example below.)

	85	15	45
	86 yr	4 mo	15 day
Today's Date:	86 yr	4 mo	15 day
Child's Birthdate:	84 yr	7 mo	25 day
Subtract to get Child's Exact Age:	1 yr	8 mo	20 day

- For R-PDQ results to be quickly and correctly interpreted (see back of form), it is necessary to convert the child's exact age to an R-PDQ age. For children below 24 months of age, the R-PDQ age is expressed in completed months and weeks, as shown:

Child's Exact Age:	1 yr	8 mo	20 day
R-PDQ Age:	(- yr	20 mo	2 completed weeks)

For children above 24 months of age, the R-PDQ age is expressed in years and months. There is no need to write in the completed weeks after 24 months of age.

Child's Exact Age:	3 yr	6 mo	28 day
R-PDQ Age:	(3 yr	6 mo	- completed weeks)

DO NOT ROUND OFF TO THE NEXT HIGHER AGE TO EXPRESS THE R-PDQ AGE. ONLY COMPLETED WEEKS, COMPLETED MONTHS, AND COMPLETED YEARS SHOULD BE CONSIDERED.

- Give the prepared form to the child's caregiver and ask that (s)he note who is completing the form, and his/her relation to the child. The caregiver should then answer questions until: 1) 3 "NOs" are circled (they do not have to be consecutive); or 2) all of the questions on both sides of the form have been answered.
- Check form to see that all appropriate questions have been answered.

* Frankenburg WK: Revised Denver Prescreening Developmental Questionnaire (R-PDQ). Presented in part at the Ambulatory Pediatric Association Meeting, May 8, 1986.

INSTRUCTIONS FOR INTERPRETING R-PDQ RESULTS

The items on the R-PDQ are arranged in chronological order according to the ages at which 90% of children in the Denver Developmental Screening Test (DDST) standardization sample could perform them. A "NO" response may signify a delay. Steps in interpretation are as follows:

1. **Review "YES" and "NO" responses.** Assure that the child's caregiver understood each question and scored the items correctly. Give particular attention to the scoring of questions that require verbal responses by the child, and that require the child to draw.
2. **Identify "delays."** Ages at which 90% of children in the DDST sample passed the items are indicated in parentheses in the "For Office Use" column. These ages are shown in months and weeks up to 24 months (for example, "20-2" indicates 20 months, 2 weeks), and in years and months after 24 months (for example, "3y-6" indicates 3 years, 6 months). A "delay" is any item passed by 90% of children at a younger age (**by even one day**) than the child being screened.

Highlight "delays" by circling the 90% age in parentheses to the right of the item that the child was not able to perform. (See example below.)

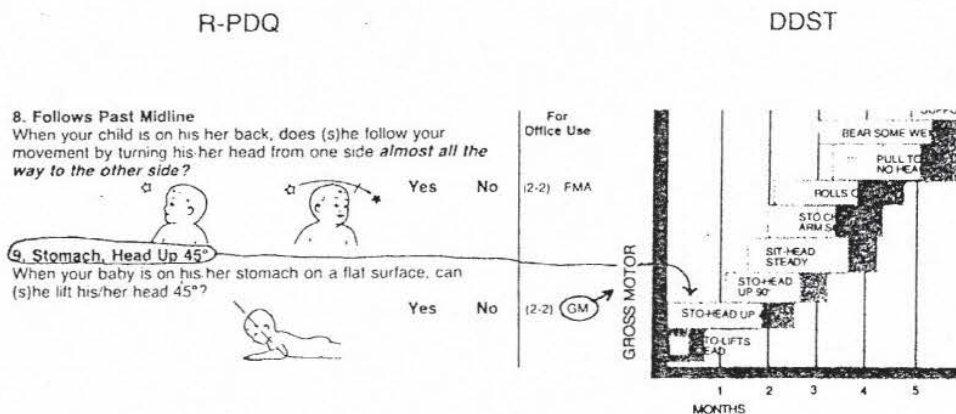
R-PDQ Age: (yr mo completed wks)

<p>39. Gets To Sitting Can your baby get to a sitting position without help?</p> <p>Yes <input type="radio"/> No <input type="radio"/></p>	<p>For Office Use (11) GM</p>
<p>40. Imitates Speech Sounds Write down 2 or 3 words that your baby tries to imitate with a recognizable sound (not necessarily complete words). In your judgment does (s)he try to imitate words?</p> <p>Yes <input type="radio"/> No <input checked="" type="radio"/></p>	<p>(11) L DELAY</p>
<p>41. Bangs 2 Cubes Held In Hands Without your moving his/her hands, can your baby bang together 2 small blocks? Rattles and pan lids do not count.</p> <p>Yes <input type="radio"/> No <input checked="" type="radio"/></p>	<p>No DELAY (12-1) FMA</p>

3. **Children who have no "delays"** are considered to be developing normally. A few age-appropriate developmental activities may be suggested to their caregivers.
4. **If a child has one "delay,"** the caregiver should be given age-appropriate developmental activities to pursue with the child, and the child should be scheduled for rescreening with the R-PDQ one month later.

If on rescreening a month later the child has one or more "delays," schedule second-stage screening with the DDST, administered by a qualified examiner, as soon as possible.
5. **Children who have two or more "delays"** on the first-stage screening with the R-PDQ should be scheduled for a second-stage screening with the DDST as soon as possible.
6. If, on second-stage screening with the DDST, a child receives other than normal results (abnormal, questionable or untestable), that child should be scheduled for a diagnostic evaluation.

For ease in interpreting R-PDQ results to a child's caregiver, each item has been given the same title as the corresponding DDST item. The name of the sector where the item is located on the DDST is shown in the "For Office Use" column of the R-PDQ as follows: PS (Personal Social); FMA (Fine Motor-Adaptive); L (Language); and GM (Gross Motor). An example of this is shown below.



REVISED DENVER PRESCREENING DEVELOPMENTAL QUESTIONNAIRE

Child's Name _____

Person Completing R-PDQ: _____

Relation to Child: _____

For Office Use

Today's Date: _____ yr _____ mo _____ day

Child's Birthdate: _____ yr _____ mo _____ day

Subtract to get Child's Exact Age: _____ yr _____ mo _____ day

R-PDQ Age: (_____ yr _____ mo _____ completed wks)

CONTINUE ANSWERING UNTIL 3 "NOs" ARE CIRCLED

1. Equal Movements

When your baby is lying on his/her back, can (s)he move each of his/her arms as easily as the other and each of the legs as easily as the other? Answer **No** if your child makes jerky or uncoordinated movements with one or both of his/her arms or legs.

Yes No

For Office Use

(0) FMA

2. Stomach Lifts Head

When your baby is on his/her stomach on a flat surface, can (s)he lift his/her head off the surface?

Yes No

(0-3) GM



3. Regards Face

When your baby is lying on his/her back, can (s)he look at you and watch your face?

Yes No

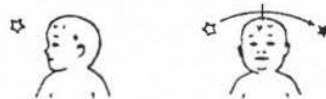
(1) PS

4. Follows To Midline

When your child is on his/her back, can (s)he follow your movement by turning his/her head from one side to facing directly forward?

Yes No

(1-1) FMA



5. Responds To Bell

Does your child respond with eye movements, change in breathing or other change in activity to a bell or rattle sounded outside his/her line of vision?

Yes No

(1-2) L

6. Vocalizes Not Crying

Does your child make sounds other than crying, such as gurgling, cooing, or babbling?

Yes No

(1-3) L

7. Smiles Responsively

When you smile and talk to your baby, does (s)he smile back at you?

Yes No

(1-2) PS

8. Follows Past Midline

When your child is on his/her back, does (s)he follow your movement by turning his/her head from one side **almost all the way to the other side**?



Yes No

For Office Use

(2-2) FMA

9. Stomach, Head Up 45°

When your baby is on his/her stomach on a flat surface, can (s)he lift his/her head 45°?

Yes No

(2-2) GM

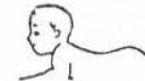


10. Stomach, Head Up 90°

When your baby is on his/her stomach on a flat surface, can (s)he lift his/her head 90°?

Yes No

(3) GM



11. Laughs

Does your baby laugh out loud without being tickled or touched?

Yes No

(3-1) L

12. Hands Together

Does your baby play with his/her hands by touching them together?

Yes No

(3-3) FMA

13. Follows 180°

When your child is on his/her back, does (s)he follow your movement from one side **all the way** to the other side?

Yes No

(4) FMA



14. Grasps Rattle

It is important that you follow instructions carefully. Do not place the pencil in the palm of your child's hand. When you touch the pencil to the back or tips of your baby's fingers, does your baby grasp the pencil for a few seconds?



TRY THIS

NOT THIS

Yes No

(4) FMA

CONTINUE ANSWERING UNTIL 3 "NOs" ARE CIRCLED

15. Sits, Head Steady

When sitting, can your child hold his/her head upright and steady? Answer **No** if his/her head falls to either side or upon his/her chest.

Yes No (4) GM

16. Stomach Chest Up-Arm Support

When your baby is on his/her stomach on a flat surface, can (s)he lift his/her chest using his/her arms for support?

Yes No (4-1) GM



17. Squeals

Does your baby make happy high-pitched squealing sounds which are not crying?

Yes No (4-2) L

18. Rolls Over

Has your baby rolled over at least 2 times, from stomach to back, or back to stomach?

Yes No (4-3) GM

19. Regards Raisin

Can your child focus his/her eyes on small objects the size of a pea, a raisin, or a penny?

Yes No (5) FMA

20. Reaches For Object

Can your child pick up a toy if it is placed within his/her reach?

Yes No (5) FMA

21. Smiles Spontaneously

Does your child smile at crib toys, pictures, or pets when (s)he is playing by himself/herself?

Yes No (5) PS

22. Pull To Sit, No Headlag

With your baby on his/her back, gently pull him/her up to a sitting position by his/her wrists. Does your baby hold his/her neck stiffly like the baby in the picture below left? Answer **No** if his/her head falls back like the baby in the picture below right.

Yes No (6-1) GM



Yes



No

For Office Use

23. Sits, Looks For Yarn

Please follow directions carefully. Get your baby's attention with a scarf, handkerchief, or a tissue and then drop it **out of sight**. Did your baby try to find it? For example, did (s)he look for it under the table or continue to watch where it disappeared?

Yes No

(7-2) FMA

24. Passes Cube Hand To Hand

Can your baby pass something, such as a small block or a small cookie, from one hand to the other? Long objects like a spoon or rattle do not count.

Yes No

(7-2) FMA

25. Sits, Takes 2 Cubes

Can your baby pick up 2 things, such as toys or cookies, and hold one in each hand at the same time?

Yes No

(7-2) FMA

26. Bears Some Weight On Legs

When you hold your baby under his/her arms, can (s)he bear some weight on his/her legs? Answer **Yes** only if (s)he tries to stand on his/her feet and supports some of his/her own weight.

Yes No

(7-3) GM

27. Rakes Raisin, Attains

Can your baby pick up small objects, such as raisins or pieces of food with his/her hand using a raking or grabbing motion?

Yes No

(7-3) FMA



28. Sits Without Support

Without being propped by pillows, a chair, or wall, can your child sit by himself/herself for 60 seconds?

Yes No

(7-3) GM

29. Feed Self Crackers

Can your baby feed himself/herself a cracker or cookie? Answer **No** if (s)he has never been given one.

Yes No

(8) PS

30. Turns To Voice

When your child is playing and you come up **quietly** behind him/her, does (s)he sometimes turn his/her head as though (s)he heard you? **Loud sounds do not count.**

Yes No

(8-1) L

Side #2

For Office Use

9-24 MONTHS
(R-PDQ)

REVISED DENVER PRESCREENING DEVELOPMENTAL QUESTIONNAIRE

Child's Name _____

Person Completing R-PDQ: _____

Relation to Child: _____

For Office Use

Today's Date: ____ yr ____ mo ____ day

Child's Birthdate: ____ yr ____ mo ____ day

Subtract to get Child's Exact Age: ____ yr ____ mo ____ day.

R-PDQ Age: (____ yr ____ mo ____ completed wks)

CONTINUE ANSWERING UNTIL 3 "NOs" ARE CIRCLED

29. Feed Self Crackers

Can your baby feed himself/herself a cracker or cookie? Answer **No** if (s)he has never been given one.

Yes No (8) PS

30. Turns To Voice

When your child is playing and you come up quietly behind him/her, does he/she sometimes turn his/her head as though (s)he heard you? **Loud sounds do not count.**

Yes No (8-1) L

31. Works For Toy Out Of Reach

When a desired toy is out of easy reach, does your baby try to get it by stretching his/her arms or body?

Yes No (9) PS

32. Plays Peek-A-Boo

When you hide behind something (or around a corner) and reappear again and again, does your baby look for you or eagerly wait for you to reappear?

Yes No (9-3) PS

33. Dada Or Mama, Nonspecific

Does your baby make either "ma-ma" or "da-da" sounds?

Yes No (10) L

34. Pulls Self To Stand

Can your baby pull himself/herself to a standing position without help?

Yes No (10) GM

35. Resists Toy Pull

Give your baby a pen or pencil. You may place it in the palm of his/her hand. Gently try to pull it away from him/her. Is it difficult for you to get the pen or pencil back?

Yes No (10) PS

36. Stands Holding On

Can your baby stand holding on to a chair or table for **30 seconds** or more?

Yes No (10) GM

37. Initially Shy With Strangers

Can your child tell you from strangers? (S)He may show this by at first being a little shy or hesitant with strangers.

Yes No (10) PS

38. Thumb-Finger Grasp

When your baby picks up a small object, such as a raisin, does (s)he do so by squeezing it between his/her thumb and fingers?

For Office Use

39. Gets To Sitting

Can your baby get to a sitting position without help?

Yes No (11) GM

40. Imitates Speech Sounds

Write down 2 or 3 words that your baby tries to imitate with a recognizable sound (not necessarily complete words).

In your judgment, does (s)he try to imitate words?

Yes No (11) L

41. Bangs 2 Cubes Held In Hands

Without your moving his/her hands, can your baby bang together 2 small blocks? Rattles and pan lids do not count.

Yes No (12-1) FMA

42. Walks Holding On Furniture

Can your baby walk alone or walk holding on to furniture?

Yes No (12-3) GM

43. Stands Momentarily

Can your baby stand alone without having to hold on to something for about **5 seconds**?

Yes No (13) GM

44. Plays Pat-A-Cake

Can your baby play "pat-a-cake" or wave "bye-bye" without help? Answer **No** if you need to help him/her by holding his/her hands.

Yes No (13) PS

45. Dada or Mama, Specific

Does your child say "da-da" when (s)he wants or sees his/her father? Does your child say "ma-ma" when (s)he wants or sees his/her mother? Answer **Yes** if your child says **either**.

Yes No (13-1) L

46. Stands Alone Well

Can your baby stand alone without having to hold on to something for **30 seconds** or more?

Yes No (13-3) GM

47. Stoops And Recovers

Without holding on to something or touching the floor, can your child bend over to pick up a toy or other object on the floor and stand up again?

Yes No (14-1) GM

9-24 MONTHS
(R-PDO)

CONTINUE ANSWERING UNTIL 3 "NOs" ARE CIRCLED

48. Indicates Wants (Not Cry)

Can your child indicate what (s)he wants without crying or whining? (S)He may do this by pointing, pulling, or making pleasant sounds.

Yes No

For Office Use
(14-1) PS

49. Walks Well

Can your child walk all the way across a large room without falling or wobbling from side to side?

Yes No

(14-1) GM

50. Neat Pincer Grasp Of Raisin

Can your baby pick up a small object, such as a raisin, using only his/her thumb and index finger?

Yes No

(14-3) FMA



51. Plays Ball With Examiner

If you roll a ball to your child, can (s)he roll or throw it back towards you? Answer No if your child only hands the ball to you, or if you have never tried this.

Yes No

(16) PS

52. Drinks From Cup

Can your child hold a regular cup or glass by himself/herself and drink from it without spilling? The cup should not have a spout.

Yes No

(16-2) PS

53. Imitates Housework

When you are doing housework, does your child copy what you are doing?

Yes No

(19-2) PS

54. Tower Of 2 Cubes

Can your child put a block on top of another without the block falling? This applies to *small* blocks about 1 inch in size and not blocks more than 2 inches in size.

Yes No

(20) FMA

55. 3 Words Other Than Mama, Dada

Can your child say at least 3 specific words, other than "da-da" and "ma-ma," which mean the same thing each time (s)he uses them?

Yes No

(20-2) L

56. Walks Backward

Can your child take 5 or more steps backwards without losing his/her balance? You may have seen him/her do this while pulling a toy.

Yes No

Side #2
For Office Use
(21-2) GM

57. Removes Garment

Can your child take off any of his/her clothes, such as pajamas (tops or bottoms) or pants? Diapers, hats and socks do not count.

Yes No

(21-3) PS

58. Walks Up Steps

Can your child walk up steps by himself/herself or by holding on to the wall or railing for support? Answer No if: 1) (s)he has to crawl up the stairs; 2) you do not let him/her climb stairs; or 3) (s)he has to hold on to a person or the next step.

Yes No

(22) GM

59. Points To 1 Named Body Part

Without your coaching, pointing, or helping, can your child point to at least 1 part of his/her body (hair, eyes, nose, mouth, or any other part) when asked? Answer Yes only if (s)he knows this well enough that (s)he will point when asked by a stranger.

Yes No

(23) L

60. Uses Spoon, Spilling Little

Can your child feed himself/herself with a spoon or fork without spilling much?

Yes No

(23-2) PS

61. Helps In House - Simple Tasks

Does your child help pick up his/her toys or help carry the dishes when asked? Answer Yes only if (s)he can *complete* either of these tasks.

Yes No

(23-2) PS

2-4 YEARS
(R-PDQ)

REVISED DENVER PRESCREENING DEVELOPMENTAL QUESTIONNAIRE

Child's Name _____
 Person Completing R-PDQ: _____
 Relation to Child: _____

For Office Use

Today's Date: ____ yr ____ mo ____ day
 Child's Birthdate: ____ yr ____ mo ____ day
 Subtract to get Child's Exact Age: ____ yr ____ mo ____ day
 R-PDQ Age: (____ yr ____ mo ____ completed wks)

CONTINUE ANSWERING UNTIL 3 "NOs" ARE CIRCLED

60. Uses Spoon, Spilling Little

Can your child feed himself/herself with a spoon or fork without spilling much?

Yes No

For Office Use

(23-2) PS

61. Helps In House - Simple Tasks

Does your child help pick up his/her toys or help carry the dishes when asked? Answer **Yes** only if (s)he can **complete** either of these tasks.

Yes No

(23-2) PS

62. Kicks Ball Forward

Without holding on to anything, can your child kick a **small** ball (like a tennis ball) in a forward direction? Pushing does not count. Answer **Yes** only if you have seen your child do this with a **small** ball.

Yes No

(2y) GM

63. Dumps Raisin From Bottle - Demonstr

Can your child dump a **small** thing such as a raisin or piece of cereal from a **small** bottle if you show him/her how to do this?

Yes No

(2y) FMA

64. Scribbles Spontaneously

Without moving his/her hand or showing him/her how to do it, give your child the pencil and see if (s)he will scribble on a piece of paper. Answer **No** if the child bangs or mouths the pencil. Answer **Yes** only if (s)he scribbles without help.

Yes No

(2y-1) FMA

65. Tower Of 4 Cubes

Can your child put **4** blocks on top of one another without the blocks falling? This applies to **small** blocks about 1 inch in size and not blocks more than 2 inches in size.

Yes No

(2y-2) FMA

66. Combines 2 Different Words

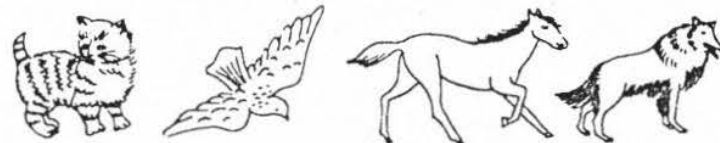
Does your child put **2** words together when (s)he speaks, such as, "want milk" and "play ball"? "Thank you" and "bye-bye" do not count.

Yes No

(2y-3) L

67. Names 1 Picture

Your child may know some of these pictures at home, but ask him/her to tell you what each of these is. **Give no help.**



Did (s)he name **2** of them? Animal sounds do not count.

Yes No

(2y-6) L



68. Throws Ball Overhand

Can your child throw a ball **overhand** (not side arm or underhand) straight, towards your stomach or chest from a distance of **5 feet**?

Yes No

For Office Use

(2y-7) GM

69. Follows Directions

It is important that you follow directions carefully. Do not gesture (point or look) when giving your child the following directions:

- "Put the paper on the floor."
- "Put the paper on the chair."
- "Give the paper to mommy."

Did (s)he follow **all 3** directions?

Yes No

(2y-8) L

70. Puts On Clothing

Can your child put on any of his/her own clothing such as shoes, pants, or T-shirt?

Yes No

(3y) PS

71. Dumps Raisin Spontaneously

Can your child dump a **small** thing such as a raisin or piece of cereal from a **small** bottle without being shown how to do this?

Yes No

(3y) FMA

72. Imitates Vertical Line Within 30°

Do not help or correct your child with this task. Draw a straight vertical line beside the one illustrated below. Say to your child, "Draw a line like I did." The child should not trace the line.



Look at these examples and score your child's drawing.

Answer Yes Answer No

Yes No

(3y) FMA

73. Jumps In Place

Without letting your child take a running jump, tell him/her to jump over the questionnaire placed on the floor. Did (s)he get both feet off the floor at once when attempting to jump over the paper?

Yes No

(3y) GM

(Please turn page)

CONTINUE ANSWERING UNTIL 3 "NOs" ARE CIRCLED

74. Pedals Tricycle

Can your child pedal a tricycle *at least 10 feet forward*? Answer **No** if your child has never had a chance to ride a tricycle his/her size.

Yes No

75. Washes And Dries Hands

Can your child wash and dry his/her hands well enough so you don't have to do them over? Answer **No** if you do not allow him/her to wash and dry his/her hands.

Yes No

76. Balance On 1 Foot

Without letting your child hold on to anything, have him/her balance on 1 foot for as long as (s)he can. If necessary, encourage him/her by showing how. **Give 3 chances**. Estimate seconds by counting slowly. Can your child balance **2 seconds** or more, **2 out of 3 trials**?

Yes No

77. Broad Jump

Without letting your child take a running jump, tell him/her to jump length-wise over this questionnaire. Did (s)he do this without landing on the paper?

Yes No

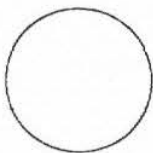
78. Uses Plurals

Does your child put an "s" at the end of his/her words when (s)he is talking about more than 1 thing, such as blocks, shoes, or toys?

Yes No

79. Copies

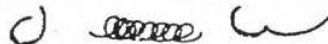
Have your child draw this figure in the space below. **Do not say "circle"**. Say, "Draw a picture just like this one," and point to the picture below. **Do not help or correct your child. Give 3 chances.**



Look at these examples when scoring your child's drawing.



Answer Yes



Answer No

Did your child draw a circle?

Yes No

For
Office Use

(3y) GM

(3y-2) PS

(3y-2) GM

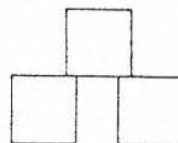
(3y-2) GM

(3y-2) L

(3y-3) FMA

80. Imitates Bridge

To do this task you will need 6 small blocks. Tell your child to watch closely while you build a bridge. Place 2 blocks side by side with a small space between. Place a third block on top of these so that the bridge looks like the picture. Give 3 blocks to your child and tell him/her to build a bridge like the one you built. Your bridge should be left standing for the child to copy. **Do not point out the opening**. Did your child build a bridge that looks like the picture?



Yes No

81. Tower Of 8 Cubes

Can your child put **8** blocks on top of one another without the blocks falling? This applies to **small** blocks about 1 inch in size and not blocks more than 2 inches in size.

Yes No

82. Plays Interactive Games, e.g. Tag

Does your child play hide-and-seek, cops-and-robbers or other games where (s)he takes turns and follows rules?

Yes No

83. Dresses With Supervision

Can your child put on and take off his/her clothes (except for tying and buttoning) with no physical help from you? Answer **No** if (s)he needs more help than being told what to do.

Yes No

84. Gives First and Last Name

Without your coaching or saying his/her name so (s)he can repeat it, can your child say both his/her first and last names? A nickname may be used in place of first name. Answer **No** if (s)he cannot be easily understood.

Yes No

For
Office Use

(3y-4) FMA

(3y-4) FMA

(3y-6) PS

(3y-6) PS

(3y-9) L

4-6 YEARS
(R-PDQ)

RE "SED DENVER PRESCREENING

DEVELOPMENTAL QUESTIONNAIRE

Child's Name _____

Person Completing R-PDQ: _____

(Relation to Child: _____)

CONTINUE ANSWERING UNTIL 3 "NOs" ARE CIRCLED

82. Plays Interactive Games, e.g. Tag

Does your child play hide-and-seek, cops-and-robbers or other games where (s)he takes turns and follows rules?

Yes No

For Office Use

(3y-6) PS

83. Dresses With Supervision

Can your child put on and take off his/her clothes (except for tying and buttoning) with no physical help from you? Answer No if (s)he needs more help than being told what to do.

Yes No

(3y-6) PS

84. Gives First and Last Name

Without your coaching can your child say *both* his/her first and last name? Nicknames may be used in place of first name. Answer No if (s)he cannot be easily understood.

Yes No

(3y-9) L

85. Comprehends Cold, Tired, Hungry

Write your child's answers to the following questions. *Give no help except to repeat the question.*

"What do you do when you are cold?" _____

"What do you do when you are hungry?" _____

"What do you do when you are tired?" _____

(For cold, the correct answer would be "shiver," "put on a coat," or "go inside;" not "take medicine" or "cough." For hungry, the correct answer would be "get something to eat." For tired, the correct answer would be "yawn," "take a nap," "lie down," "rest," or "be quiet." Did (s)he answer *all 3* correctly with words – not with motions or gestures?

Yes No

(4y-1) L

86. Buttons Up

Can your child button some of his/her clothing or doll's clothes? Snaps do not count. Answer No if (s)he does not have clothes with buttons.

Yes No

(4y-2) PS

87. Balance On 1 Foot 5 Seconds

Have your child balance on 1 foot as long as possible without holding on to anything. If necessary, show how. *Give 3 chances.* Estimate seconds by counting slowly. Did your child balance *6 seconds* or more, *2 out of 3 trials*?

Yes No

(4y-3) GM

For Office Use

Today's Date: _____ yr _____ mo _____ day

Child's Birthdate: _____ yr _____ mo _____ day

Subtract to get Child's Exact Age: _____ yr _____ mo _____ day

R-PDQ Age: (_____ yr _____ mo _____ completed wks)

88. Copies +

Do not tell your child the name of this picture. Do not give help. Say, "Draw a picture just like this one," and point to the picture below. *Give 3 chances.* Look at the examples when scoring your child's drawing.

For Office Use



Answer Yes + X X

Answer No -| -|-| -|

Did your child draw a cross?

Yes No

(4y-4) FMA

89. Picks Longer Line

Do not correct your child or give him/her help. Do not use the word bigger. Show the 2 lines at the right to your child. Say, "Point to the line that is longer." After the child points, turn the drawing upside down and say, "Point to the line that is longer." After the child points, turn the drawing upside down again and say a third time, "Point to the line that is longer." Did your child point to the longer line *all 3 times*?



Yes No

(4y-4) FMA

90. Comprehends Prepositions

Do not point or look when giving your child the following directions:

"Put the paper on the floor." "Put the paper in front of you." "Put the paper under the chair." "Put the paper behind you."

Did your child follow *all 4* directions correctly?

Yes No

(4y-6) L

91. Separates From Mother Easily

Does your child react without crying, whimpering, or hanging on to you when you leave him/her with a stranger or a new babysitter?

Yes No

(4y-8) PS

CONTINUE ANSWERING UNTIL 3 "NOs" ARE CIRCLED

92. Recognizes Colors

Do not point, help, or correct your child when asking him/her the following: "Point to the RED square." "Point to the YELLOW square." "Point to the BLUE square." "Point to the GREEN square."



Did your child point to **all 4** colors correctly? Yes No

93. Hops On 1 Foot

Have your child hop on 1 foot several times without holding on to anything. Skipping does not count. Did (s)he hop **2 or more** times?

Yes No

94. Dresses Without Supervision

Can your child dress himself/herself **completely without help**?

Yes No

95. Heel To Toe Walk

Show your child how to walk placing the heel of 1 foot in front of and touching the toe of the other. Walk about 8 steps like this and then tell your child to do so. **Allow 3 trials.** Did your child walk a **straight** line for **4 or more** steps placing his/her heel **no more than 1 inch** in front of his/her toe, **2 out of 3 trials.**

Yes No

96. Draws Man, 3 Parts

Have your child draw in the space below. Say, "Draw a picture of a man." **Do not give any further instructions. Do not ask about any missing parts.** Count any pair (eyes, arms, etc.) as 1 part. Did your child draw a man with **at least 3 parts**?

Yes No

97. Opposite Analogies

Write what your child says to these unfinished sentences. **Give no help except to repeat the sentence.**

"If a horse is big, a mouse is..." _____

"If fire is hot, ice is..." _____

"If mother is a woman, dad is a..." _____

(Mouse is little, small, tiny; ice is cold, freezing; dad is a man.) Did your child answer **2** correctly? Yes No

98. Catches Bounced Ball

When a small ball, such as a tennis ball, is bounced to your child, can (s)he catch it using only his/her hands? **Large balls do not count.**

Yes No

For Office Use

(4y-10) L

(4y-10) GM

(5y) PS

(5y) GM

(5y-2) FMA

(5y-3) L

(5y-6) GM

99. Imitates Demonstrated

It is important to follow instructions carefully. Do not name the figure below. Do not show how it is drawn or indicate by finger movement. Say, "Draw a picture just like this one." If (s)he cannot copy the figure, show him/her how to draw the figure (do not name it) and tell him/her again to draw it. Look at the examples when scoring your child's drawing.



Answer Yes



Answer No



Did your child draw a square?

Yes No

100. Balances On 1 Foot 10 Seconds

Have your child balance on 1 foot as long as possible without holding on to anything. If necessary, show how. **Give 3 chances.** Estimate seconds by counting slowly. Did your child balance **11 seconds** or more, **2 out of 3 trials**?

Yes No

101. Copies

Without having to be shown how, did your child copy the figure in item # 99 correctly?

Yes No

102. Draws Man 6 Parts

Look at item # 96. Did your child draw a man with **at least 6 parts**? (Count each pair as 1 part.)

Yes No

103. Backward Heel-Toe Walk

Show your child how to walk placing the toe of 1 foot in back of and touching the heel of the other. Walk about 8 steps like this and then tell your child to do it. **Allow 3 trials.** Did your child walk backward in a **straight** line for **4 or more** steps placing his/her toe **no more than 1 inch** in back of his/her heel, **2 out of 3 trials**?

Yes No

104. Defines Words

Write your child's answers to the following questions. **Ask the questions one at a time** and wait for your child to answer after each one. **Give no help except to repeat the question.**

"What is a ball?" _____ "What is a curtain?" _____

"What is a lake?" _____ "What is a ceiling?" _____

"What is a desk?" _____ "What is a hedge?" _____

"What is a house?" _____ "What is pavement?" _____

"What is a banana?" _____

Did your child define **6 of the 9** words correctly, in terms of use, shape, what it is made of, or general category, such as fruit for banana?

Yes No

105. Composition Of

Write your child's answers to the following questions. **Give no help except to repeat the question.**

"What is a spoon made of?" _____

"What is a shoe made of?" _____

"What is a door made of?" _____

(Spoon is metal or specific metal, plastic, wood; shoe is leather, rubber, cloth, plastic, wood; door is wood, metal, glass.) Did your child answer

all 3 questions correctly?

Yes No

For Office Use

(5y-8) FMA

(5y-10) GM

(6y) FMA

(6y) FMA

(6y-3) GM

(6y-3) L

) L