

TABLE E-1 Characteristics of the Juvenile Rheumatoid Arthritis Group

| Case | Sex | Age (yr) | Dom. Side | Side of Op. | Preoperative Assessment |                  |        |           |               | Duration of Follow-up (mo) | Postoperative Assessment |                  |      |               |                       |
|------|-----|----------|-----------|-------------|-------------------------|------------------|--------|-----------|---------------|----------------------------|--------------------------|------------------|------|---------------|-----------------------|
|      |     |          |           |             | Ext.-Flex. (deg)        | Pron.-Sup. (deg) | Pain   | Instabil. | MEPS (points) |                            | Ext.-Flex. (deg)         | Pron.-Sup. (deg) | Pain | MEPS (points) | Complication          |
| 1    | F   | 38       | R         | L           | 80-115                  | 0-0              | Mod.   | Mild      | 20            | 96                         | 40-135                   | 70-20            | None | 95            | Triceps insuff.*      |
| 2    | F   | 36       | R         | R           | 75-95                   | 0-0              | Mod.   | Mild      | 20            | 110                        | 40-120                   | 60-0             | None | 95            | Triceps insuff.*      |
| 3    | F   | 32       | L         | R           | 0-0                     | 0-0              | None   | Stable    | 60            | 129                        | 0-145                    | 70-70            | None | 95            | Superficial infection |
| 4    | F   | 33       | R         | L           | 30-125                  | 25-45            | Mod.   | Mod.      | 35            | 98                         | 0-140                    | 80-80            | None | 90            |                       |
| 5    | F   | 32       | R         | R           | 50-130                  | 70-70            | Severe | Mod.      | 20            | 101                        | 0-140                    | 80-80            | None | 90            |                       |
| 6    | M   | 34       | R         | L           | 30-130                  | 80-80            | Mild   | Mod.      | 55            | 71                         | 0-140                    | 75-80            | None | 100           | Superficial infection |
| 7    | M   | 35       | R         | R           | 30-130                  | 75-80            | Mild   | Mod.      | 55            | 62                         | 0-140                    | 85-0             | None | 100           |                       |
| 8    | F   | 27       | L         | L           | 30-130                  | 60-60            | Mod.   | Gross     | 35            | 89                         | 20-130                   | 85-70            | None | 100           |                       |
| 9    | F   | 40       | R         | L           | 60-135                  | 55-15            | Severe | Mod.      | 20            | 242                        | 10-140                   | 70-70            | Mild | 75            |                       |
| 10   | F   | 38       | L         | R           | 30-130                  | 30-30            | Mild   | Gross     | 50            | 120                        | 35-125                   | 70-60            | Mild | 80            |                       |
| 11   | F   | 27       | L         | R           | 25-125                  | 30-45            | Mod.   | Mod.      | 35            | 100                        | 0-145                    | 85-80            | Mild | 80            |                       |
| 12   | M   | 25       | R         | L           | 50-100                  | 30-40            | Severe | Stable    | 25            | 94                         | 20-120                   | 60-60            | None | 85            |                       |
| 13   | F   | 36       | L         | R           | 70-100                  | 30-0             | Mod.   | Stable    | 30            | 113                        | 20-100                   | 80-60            | None | 71            |                       |
| 14   | F   | 27       | R         | R           | 70-105                  | 50-0             | Mod.   | Mod.      | 25            | 98                         | 0-140                    | 80-60            | Mild | 85            |                       |
| 15   | F   | 26       | R         | R           | 65-110                  | 20-40            | Mild   | Mod.      | 50            | 24                         | 20-140                   | 30-30            | None | 100           |                       |
| 16   | F   | 30       | R         | L           | 30-145                  | 60-0             | Mod.   | Mod.      | 40            | 24                         | 30-130                   | 70-70            | Mild | 80            |                       |
| 17   | F   | 24       | L         | R           | 45-65                   | 0-0              | None   | Stable    | 60            | 60                         | 10-140                   | 0-0              | None | 90            |                       |
| 18   | F   | 31       | R         | L           | 60-90                   | 0-20             | Severe | Stable    | 15            | 99                         | 10-140                   | 80-80            | None | 100           |                       |
| 19   | F   | 32       | R         | R           | 30-125                  | 30-30            | Severe | Stable    | 25            | 91                         | 10-140                   | 80-45            | None | 100           |                       |
| 20   | M   | 28       | R         | L           | 60-100                  | 40-40            | Mild   | Stable    | 60            | 63                         | 0-130                    | 60-30            | None | 100           |                       |
| 21   | F   | 31       | R         | R           | 25-135                  | 80-80            | Severe | Stable    | 45            | 24                         | 0-130                    | 60-60            | None | 100           |                       |
| Mean |     | 32       |           |             | 45-105                  | 36-32            |        |           | 37            | 91                         | 13-134                   | 68-53            |      | 91            |                       |

\*Required a reoperation.

TABLE E-2 Characteristics of the Rheumatoid Arthritis Group

| Case | Sex | Age (yr) | Dom. Side | Side of Op. | Preoperative Assessment |                  |        |             |               | Duration of Follow-up (mo) | Postoperative Assessment |                  |      |               |                     |
|------|-----|----------|-----------|-------------|-------------------------|------------------|--------|-------------|---------------|----------------------------|--------------------------|------------------|------|---------------|---------------------|
|      |     |          |           |             | Ext.-Flex. (deg)        | Pron.-Sup. (deg) | Pain   | Instability | MEPS (points) |                            | Ext.-Flex. (deg)         | Pron.-Sup. (deg) | Pain | MEPS (points) | Complication*       |
| 22   | F   | 36       | R         | R           | 5-120                   | 85-70            | Severe | Gross       | 20            | 134                        | 60-140                   | 80-50            | None | 85            |                     |
| 23   | M   | 32       | R         | L           | 30-130                  | 30-20            | Mild   | Mod.        | 55            | 181                        | 0-140                    | 80-80            | None | 100           |                     |
| 24   | F   | 32       | R         | L           | 45-0                    | 80-15            | Mild   | Stable      | 55            | 122                        | 0-140                    | 80-50            | None | 100           | Component loosening |
| 25   | F   | 35       | R         | R           | 5-120                   | 70-80            | Mod.   | Mod.        | 40            | 185                        | 0-140                    | 80-85            | Mild | 85            | Bushing exchange    |
| 26   | F   | 27       | R         | L           | 15-130                  | 85-85            | Mod.   | Mod.        | 40            | 34                         | 30-145                   | 80-80            | None | 95            |                     |
| 27   | F   | 40       | R         | L           | 30-120                  | 55-15            | Severe | Gross       | 15            | 41                         | 0-140                    | 80-80            | None | 100           | Deep infection      |
| 28   | F   | 37       | R         | L           | 45-100                  | 50-40            | Severe | Mod.        | 20            | 121                        | 20-130                   | 80-70            | None | 95            |                     |
| 29   | F   | 37       | R         | R           | 30-110                  | 20-20            | Severe | Mod.        | 20            | 114                        | 20-135                   | 80-60            | None | 100           |                     |
| 30   | F   | 30       | R         | R           | 39-110                  | 50-0             | Severe | Mod.        | 35            | 63                         | 30-130                   | 20-75            | None | 95            |                     |
| 31   | F   | 38       | R         | L           | 65-105                  | 0-10             | Mild   | Stable      | 45            | 62                         | 20-145                   | 60-30            | None | 95            |                     |
| 32   | F   | 39       | R         | R           | 40-130                  | 30-40            | Severe | Stable      | 50            | 65                         | 20-140                   | 80-10            | Mild | 80            |                     |
| 33   | F   | 36       | R         | L           | 40-95                   | 20-30            | Severe | Stable      | 25            | 39                         | 20-140                   | 80-80            | None | 100           |                     |
| 34   | F   | 34       | R         | R           | 30-90                   | 20-20            | Severe | Stable      | 25            | 63                         | 20-130                   | 80-60            | None | 100           |                     |
| 35   | F   | 38       | R         | R           | 15-145                  | 60-70            | Severe | Mod.        | 50            | 61                         | 20-140                   | 80-80            | None | 100           |                     |
| 36   | F   | 38       | R         | R           | 30-130                  | 60-60            | Severe | Mod.        | 45            | 30                         | 30-130                   | 80-80            | None | 95            |                     |
| Mean |     | 35       |           |             | 31-109                  | 48-38            |        |             | 36            | 88                         | 19-138                   | 75-65            |      | 95            |                     |

\*Required a reoperation.

TABLE E-3 Characteristics of the Posttraumatic Arthritis Group

| Case | Sex | Age (yr) | Dom. Side | Side of Op. | Preoperative Assessment |                  |        |           |               | Duration of Follow-up (mo) | Postoperative Assessment |                  |      |               |                       |
|------|-----|----------|-----------|-------------|-------------------------|------------------|--------|-----------|---------------|----------------------------|--------------------------|------------------|------|---------------|-----------------------|
|      |     |          |           |             | Ext.-Flex. (deg)        | Pron.-Sup. (deg) | Pain   | Instabil. | MEPS (points) |                            | Ext.-Flex. (deg)         | Pron.-Sup. (deg) | Pain | MEPS (points) | Complication*         |
| 37   | F   | 32       | R         | R           | 45-120                  | 35-80            | Mod.   | Stable    | 45            | 168                        | 0-140                    | 85-45            | None | 100           | Bushing exchange      |
| 38   | M   | 39       | R         | L           | 45-95                   | 80-80            | Mild   | Mod.      | 40            | 65                         | 20-140                   | 80-75            | None | 95            |                       |
| 39   | M   | 40       | R         | L           | 60-90                   | 80-10            | None   | Stable    | 60            | 242                        | 20-140                   | 85-70            | None | 100           |                       |
| 40   | F   | 40       | R         | L           | 50-115                  | 70-80            | Severe | Mod.      | 20            | 200                        | 0-145                    | 80-80            | None | 95            | Deep infection        |
| 41   | F   | 24       | L         | R           | 30-0                    | 0-0              | None   | Stable    | 60            | 225                        | 0-140                    | 0-0              | None | 90            |                       |
| 42   | M   | 36       | L         | R           | 45-110                  | 20-10            | Mild   | Stable    | 55            | 24                         | 50-130                   | 80-80            | Mild | 75            | Component loosening   |
| 43   | F   | 24       | R         | L           | 5-70                    | 45-80            | Mild   | Gross     | 55            | 52                         | 10-90                    | 8-75             | Mild | 60            | Component loosening   |
| 44   | F   | 34       | R         | L           | 55-110                  | 60-50            | Severe | Stable    | 25            | 92                         | 40-140                   | 30-80            | None | 90            |                       |
| 45   | M   | 28       | R         | R           | 15-45                   | 0-0              | Mild   | Gross     | 35            | 115                        | 90-120                   | 30-30            | None | 60            | Triceps insufficiency |
| 46   | M   | 22       | L         | R           | 40-80                   | 10-0             | Severe | Gross     | 5             | 86                         | 30-100                   | 70-75            | None | 85            |                       |
| 47   | F   | 37       | R         | R           | 0-140                   | 80-80            | Severe | Gross     | 45            | 134                        | 0-140                    | 80-80            | None | 100           | Bushing exchange      |
| 48   | F   | 37       | R         | R           | 0-145                   | 60-60            | Mild   | Gross     | 75            | 119                        | 0-140                    | 80-20            | None | 100           |                       |
| 49   | M   | 40       | L         | R           | 80-0                    | 0-0              | None   | Stable    | 60            | 49                         | 50-60                    | 30-30            | Mild | 45            |                       |
| 50   | F   | 39       | R         | R           | 10-130                  | 80-80            | Severe | Mod.      | 50            | 140                        | 10-130                   | 20-60            | Mild | 80            |                       |
| 51   | F   | 38       | R         | L           | 10-70                   | 0-0              | Severe | Stable    | 25            | 63                         | 20-130                   | 70-20            | Mild | 75            |                       |
| 52   | M   | 28       | R         | L           | 30-130                  | 80-80            | Mod.   | Mod.      | 50            | 47                         | 5-145                    | 80-80            | Mild | 75            | Component loosening   |
| 53   | F   | 28       | R         | L           | 40-140                  | 80-80            | Severe | Gross     | 40            | 64                         | 30-130                   | 80-80            | Mild | 80            |                       |
| 54   | F   | 23       | R         | L           | 35-70                   | 35-25            | Mild   | Stable    | 45            | 24                         | 20-125                   | 0-30             | None | 90            |                       |
| 55   | F   | 32       | R         | R           | 30-90                   | 10-10            | Mild   | Stable    | 55            | 27                         | 0-130                    | 60-30            | None | 100           |                       |
| Mean |     | 33       |           |             | 33-92                   | 43-42            |        |           | 44            | 102                        | 21-127                   | 55-51            |      | 83            |                       |

\*Required a reoperation.