

Electronic Appendix:

Table E-1

| Case | Prior Procedure                                                                      |
|------|--------------------------------------------------------------------------------------|
| 7    | ORIF of hip fracture, valgus femoral osteotomy                                       |
| 8    | Internal fixation of slipped capital femoral epiphysis, femoral rotational osteotomy |
| 15   | Pemberton osteotomy, varus femoral osteotomy, then periacetabular osteotomy          |
| 18   | Open reduction with adductor tenotomy                                                |
| 28   | Hip arthroscopy                                                                      |
| 29   | 2 hip arthroscopy procedures                                                         |

Table E-2  
Outerbridge Classification

| Grade | Description                                                      |
|-------|------------------------------------------------------------------|
| 0     | Normal cartilage                                                 |
| I     | Softening and swelling of the articular cartilage                |
| II    | Fissuring and fragmentation < 10 millimeters                     |
| III   | Fissuring and fragmentation > 10 millimeters                     |
| IV    | Erosive changes and exposure of subchondral bone (delaminations) |

Table E-3

| Patient<br>(Hip ) | Pincer and/or<br>Cam<br>Impingement | Labral Lesion                   | Labral Treatment             | Outerbridge<br>Classification | Acetabular articular<br>cartilage treatment             | Femoral Treatment                              | Additional<br>Surgery            | Preoperative<br>Tönnis Grade | Final follow-up<br>Tönnis Grade |
|-------------------|-------------------------------------|---------------------------------|------------------------------|-------------------------------|---------------------------------------------------------|------------------------------------------------|----------------------------------|------------------------------|---------------------------------|
| 1 (1)             | pincer and cam                      |                                 |                              | IV                            | delamination resected, microfracture                    | head-neck junction chondro-osseous débridement |                                  | I                            | I                               |
| 2 (2)             | pincer and cam                      |                                 |                              | IV                            | delamination resected, no bone treatment                | head-neck junction chondro-osseous débridement | total hip arthroplasty           | 0                            | I                               |
| 3 (3)             | pincer and cam                      | labral tear                     | labral tear débrided         | II                            | limited cartilage débridement                           | head-neck junction chondro-osseous débridement |                                  | 0                            | 0                               |
| 4 (4)             | pincer and cam                      | labral tear                     | labral tear débrided         | 0                             | no treatment                                            | head-neck junction chondro-osseous débridement |                                  | I                            | II                              |
| 5 (5)             | pincer and cam                      | labral tear                     | labral tear débrided         | III                           | no treatment                                            | head-neck junction chondro-osseous débridement |                                  | 0                            | 0                               |
| 6 (6)             | cam                                 |                                 |                              | IV                            | delamination resected, no bone treatment                | head-neck junction chondro-osseous débridement | total hip arthroplasty           | II                           | III                             |
| 7 (7)             | cam                                 | labral tear & degeneration      | none                         | I                             | no treatment                                            | head-neck junction chondro-osseous débridement |                                  | 0                            | 0                               |
| 8 (8)             | cam                                 |                                 |                              | I                             | no treatment                                            | head-neck junction chondro-osseous débridement |                                  | I                            | I                               |
| 9 (9)             | cam                                 | labral tear                     | labral repair                | IV                            | delamination and bone resected with labral advancement  | head-neck junction chondro-osseous débridement | periacetabular osteotomy         | 0                            | I                               |
| 10 (10)           | pincer and cam                      | labral degeneration             | labral repair                | IV                            | delamination resected, no bone treatment                | head-neck junction chondro-osseous débridement | will need total hip arthroplasty | I                            | III                             |
| 11 (11)           | cam                                 | labral tear                     | none                         | I                             | no treatment                                            | head-neck junction chondro-osseous débridement |                                  | 0                            | 0                               |
| 12 (12)           | pincer                              | labral degeneration             | labral degeneration débrided | IV                            | limited cartilage débridement                           | head-neck junction chondro-osseous débridement |                                  | 0                            | 0                               |
| 13 (13)           | pincer and cam                      | labral tear                     | labral tear débrided         | IV                            | delamination resected, no bone treatment                | same, with relative femoral neck lengthening   |                                  | 0                            | 0                               |
| 14 (14)           | cam                                 | labral detachment               | labral repair                | IV                            | no treatment                                            | head-neck junction chondro-osseous débridement |                                  | 0                            | I                               |
| 15 (15)           | cam                                 | redundant labrum                | labrum débrided              | IV                            | no treatment                                            | same, with relative femoral neck lengthening   |                                  | II                           | II                              |
| 16 (16)           | cam                                 | labral tear                     | labral repair                | IV                            | delamination and bone resected with labral advancement  | head-neck junction chondro-osseous débridement |                                  | 0                            | 0                               |
| 17 (17)           | cam                                 |                                 |                              | IV                            | delamination resected, no bone treatment                | head-neck junction chondro-osseous débridement |                                  | I                            | I                               |
| 18 (18)           | cam                                 | labral tear                     | none                         | III                           | no treatment                                            | same, with relative femoral neck lengthening   |                                  | 0                            | 0                               |
| 19 (19)           | pincer and cam                      |                                 |                              | 0                             | no treatment                                            | same, with relative femoral neck lengthening   |                                  | 0                            | I                               |
| 20* (20)          | pincer and cam                      |                                 |                              | I                             | limited cartilage débridement, calcified labrum removed | head-neck junction chondro-osseous débridement |                                  | I                            | I                               |
| 21 (21)           | cam                                 |                                 |                              | IV                            | delamination resected, microfracture                    | head-neck junction chondro-osseous débridement |                                  | 0                            | I                               |
| 22 (22)           | pincer and cam                      | labral tear & degeneration      | labral repair                | II                            | no treatment                                            | head-neck junction chondro-osseous débridement |                                  | 0                            | 0                               |
| 23 (23)           | pincer and cam                      | labral degeneration             | labral degeneration débrided | I                             | no treatment                                            | head-neck junction chondro-osseous débridement |                                  | 0                            | 0                               |
| 24 (24)           | cam                                 |                                 |                              | IV                            | delamination and bone resected with labral advancement  | same, with relative femoral neck lengthening   | periacetabular osteotomy         | 0                            | I                               |
| 25 (25)           | cam                                 |                                 |                              | IV                            | delamination and bone resected with labral advancement  | head-neck junction chondro-osseous débridement |                                  | I                            | I                               |
| 26 (26)           | cam                                 | labral detachment (9-3 o'clock) | none                         | IV                            | delamination resected, no bone treatment                | head-neck junction chondro-osseous débridement | total hip arthroplasty           | I                            | II                              |
| 27 (27)           | pincer and cam                      |                                 |                              | IV                            | delamination resected, no bone treatment                | head-neck junction chondro-osseous débridement |                                  | I                            | I                               |
| 20* (28)          | pincer and cam                      |                                 |                              | I                             | limited cartilage débridement, calcified labrum removed | head-neck junction chondro-osseous débridement |                                  | I                            | I                               |
| 28 (29)           | pincer and cam                      |                                 |                              | IV                            | delamination resected, microfracture                    | head-neck junction chondro-osseous débridement |                                  | I                            | I                               |
| 29 (30)           | pincer and cam                      | no labrum present               |                              | IV                            | limited cartilage débridement                           | head-neck junction chondro-osseous débridement |                                  | I                            | I                               |

\* same patient