Audio Lecture II
In-shoe Pressure Analysis Pearls in Diabetic Off-loading

Bruce E. Williams, DPM, FACFAS, FAAPSM

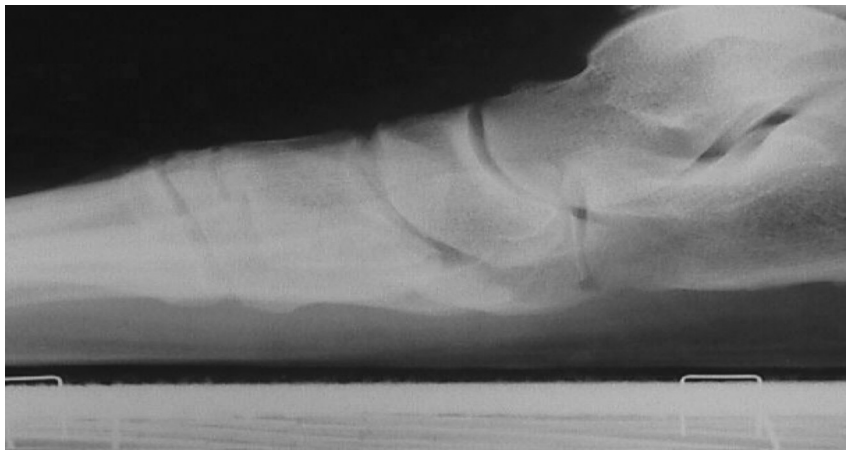

Figure 1. Early changes in Charcot foot.

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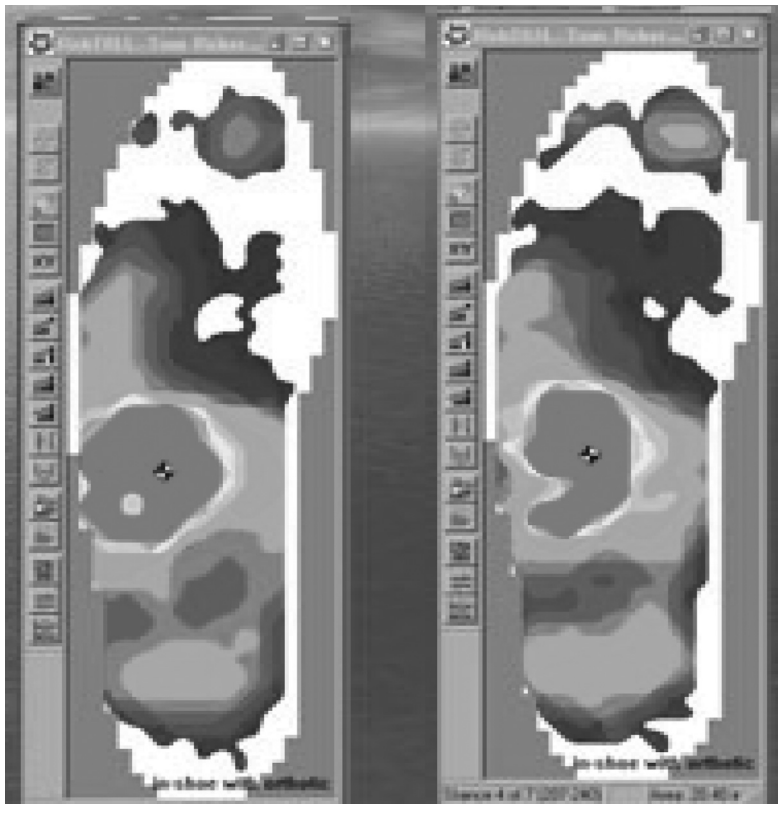

Figure 2. Pressure evaluation pre- and postmodification. Left, Left Charcot foot preorthotic modification. Right, Left Charcot foot with modified devices.

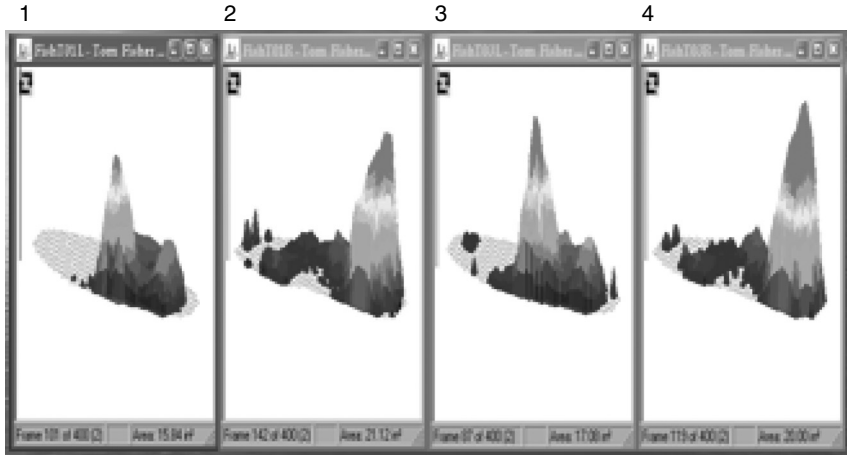

Figure 3. Heel strike. Note high pressure subcuboid on slides with no heel roll on strike. Higher heel pressure from more normal contact of the heel on the right foot. Frame 1: Left foot premodification. Frame 2: Right foot premodification. Frame 3: Left foot postmodification. Frame 4: Right foot postmodification.

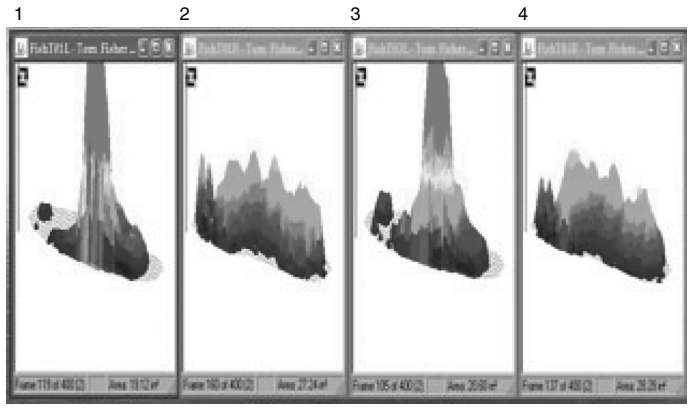

Figure 4. Midstance phase. Severely high pressures that have not moved left foot, and more equal pressures on the right feet. Frame 1: Left foot premodification. Frame 2: Right foot premodification. Frame 3: Left foot postmodification. Frame 4: Right foot postmodification.

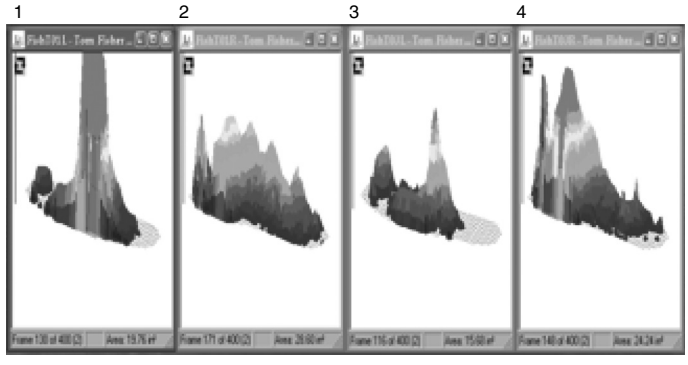

Figure 5. Heel lift. Notice the high pressure left foot that has not changed and no progression into toe-off prolonged midstance phase. Frame 1: Left foot premodification. Frame 2: Right foot premodification. Frame 3: Left foot postmodification. Frame 4: Right foot postmodification.

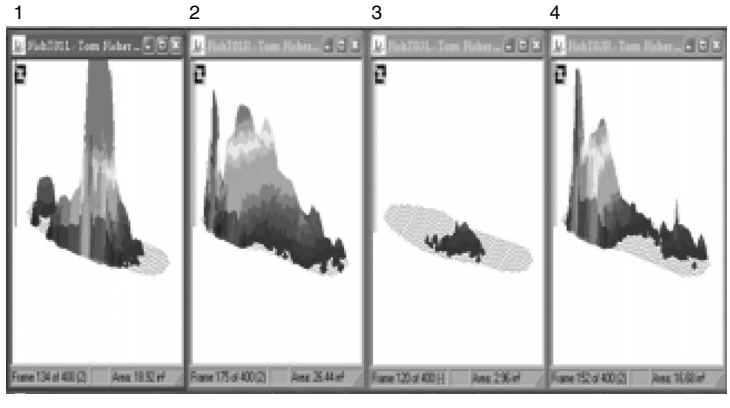

Figure 6. Lift off. The left foot Prior to modification still has extremely high pressures. After modification the patient has lifted off and moved into swing phase. Frame 1: Left foot premodification. Frame 2: Right foot premodification. Frame 3: Left foot postmodification. Frame 4: Right foot postmodification.

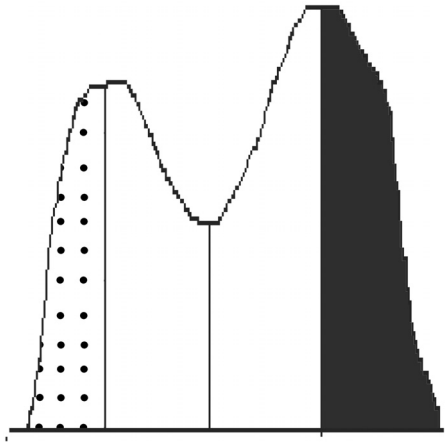

Figure 7. Double limb support transition period. Dotted section = heel contact and initial double support. Black section = Toe-off and terminal double support.

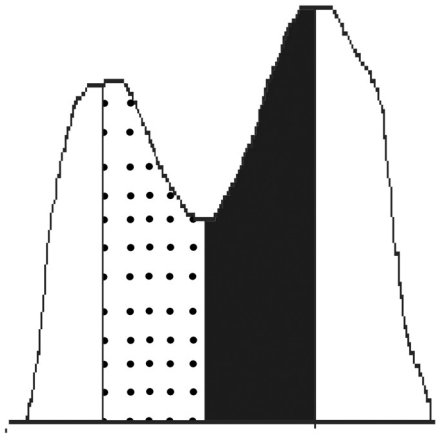

Figure 8. Single limb support phase. Dotted section = Midstance phase. Black section = Active propulsion (beginning of heel lift).

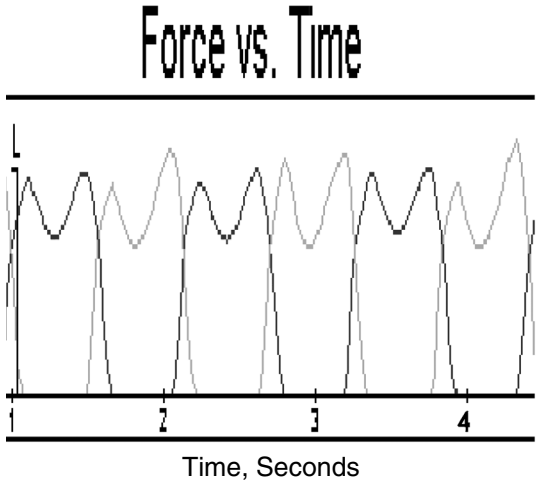

Figure 9. Normal force vs. time curves.

Figure 10. Charcot foot–premodification.

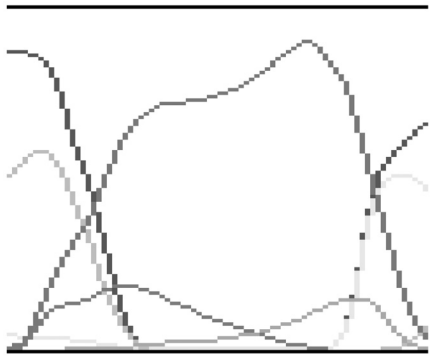

Figure 11. Charcot foot–postmodification.

Figure 12. High hallux pressure, and low sub first metatarsophalangeal joint pressure. Functional hallux limitus.

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