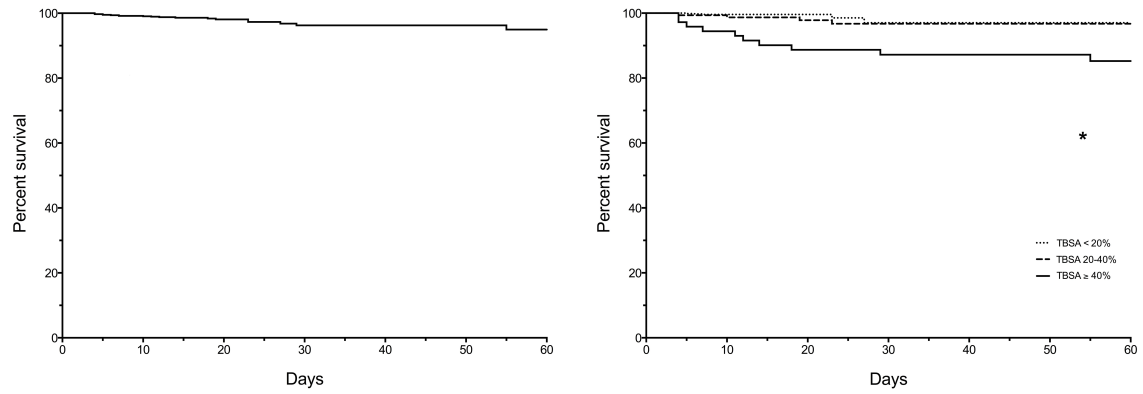
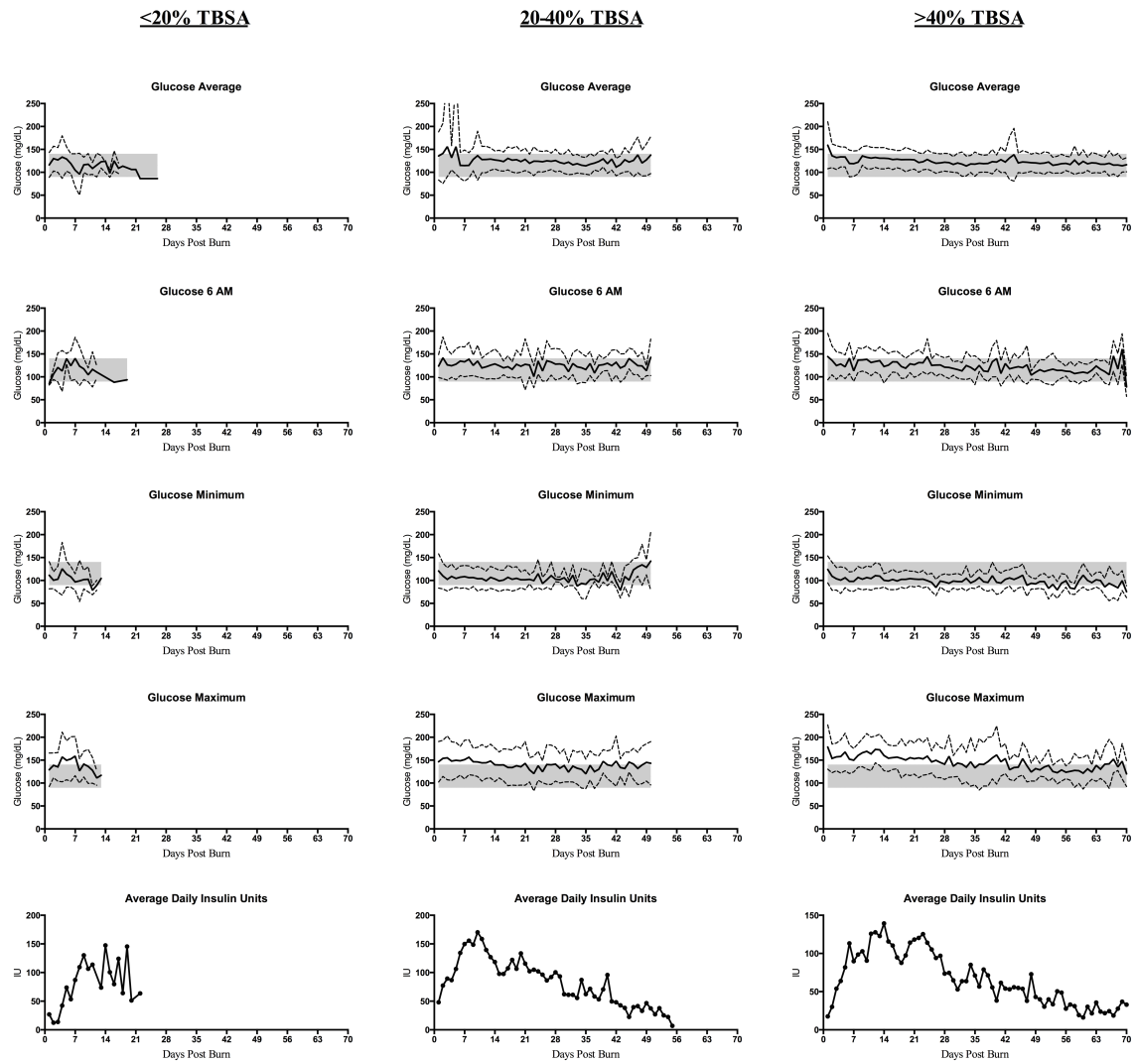


Supplemental Figure 1: Patient flow diagram.

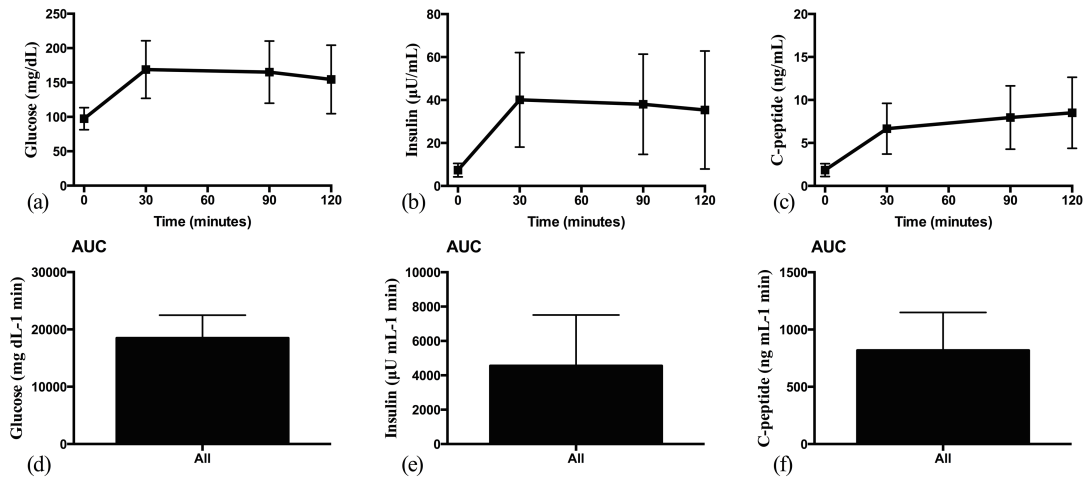


Supplemental Figure 2: Kaplan-Meier survival curves for adult burn patients and burn patients stratified based on TBSA burn groups. Less than 20% and 20-40% TBSA burn groups had similar survival rates with the lowest (80%) representing the severe burn group ( $\geq 40\%$ TBSA).

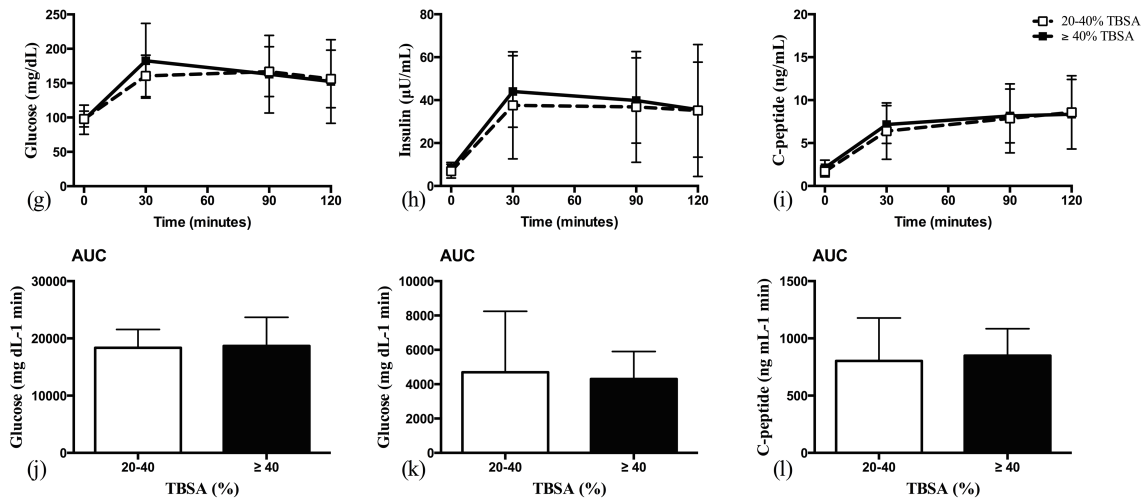


Supplemental Figure 3: Patients' glucose levels in burn adults stratified by injury severity (<20%, 20-40%, >40% TBSA). Mean daily average glucose, 6AM glucose, minimum glucose, maximum glucose and insulin units administered during the course of hospital stay stratified by injury severity. Dashed lines indicate SD. Shaded area represents glucose control protocol target range of 90 to 144 mg/dL (5 to 8 mmol/L).

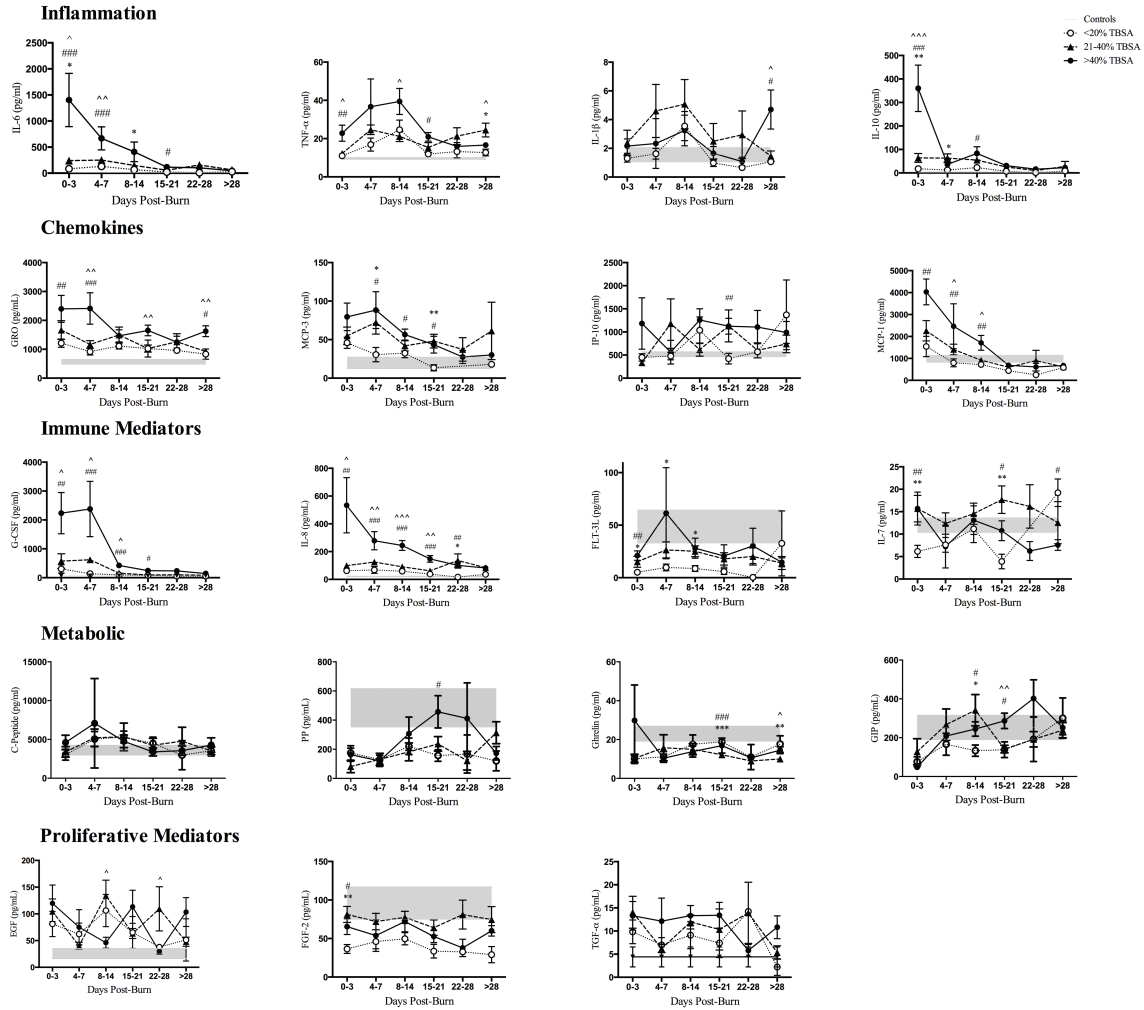
## Burn



## Burn Severity

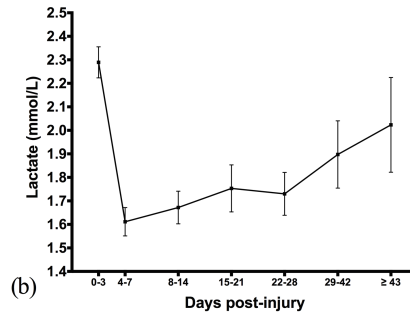
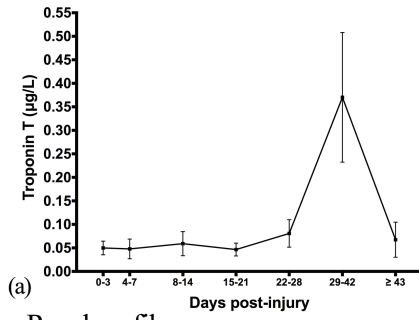


Supplemental Figure 4: Mean glucose (A), insulin (B), and C-peptide (C) levels and mean area under the curve for glucose (D), insulin (E), and C-peptide (F) of all burn patients (n=33) and when comparing burn patients by severity for mean glucose (G), insulin (H), and C-peptide (I) levels and mean area under the curve for glucose (J), insulin (K), and C-peptide (L) via the 2-hour oral glucose tolerance test. Error bars indicate SD. AUC, area under the curve.

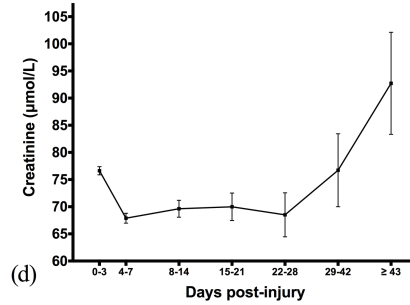
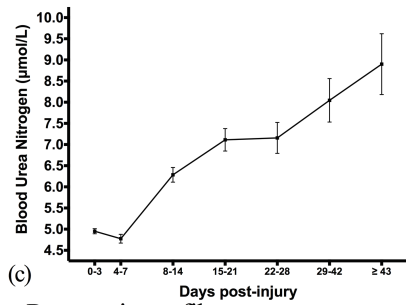


Supplemental Figure 5: Plasma cytokine profiling of burn patients stratified based on burn TBSA groups (<20%, 20-40% and >40%). As expected, severe burn (>40% TBSA) resulted in the modest profound alterations in inflammatory, chemokine, immune and metabolic trajectories. Data is represented as mean  $\pm$  SEM with healthy controls as grey regions. \*, \*\* & \*\*\* = significant difference between <20% and 20-40% TBSA; #, ## & ### = significant difference between <20% and >40% TBSA; ^, ^^ & ^^^ = significant difference between 20-40% and >40%; P<0.05, P<0.01, P<0.001, respectively.

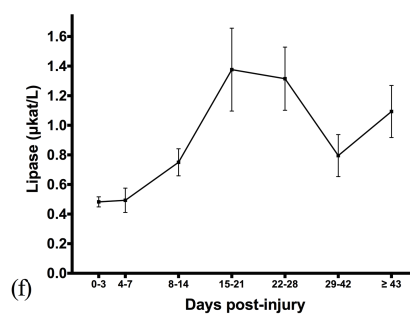
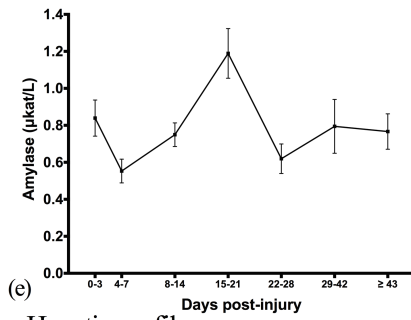
### Cardiac profile



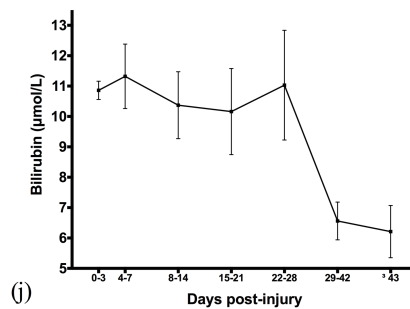
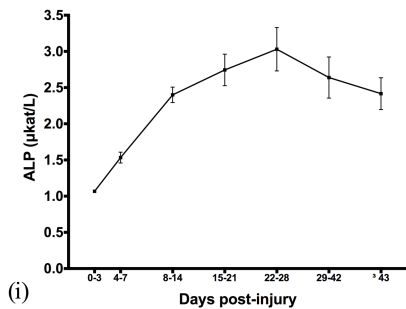
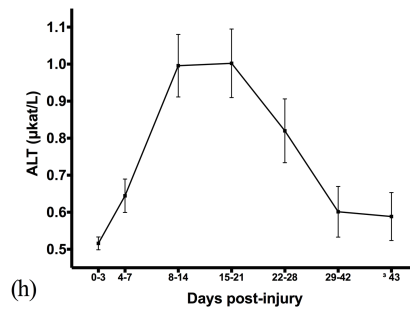
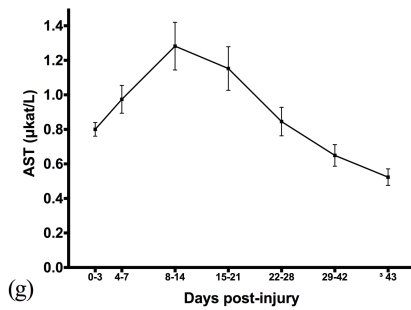
### Renal profile



### Pancreatic profile

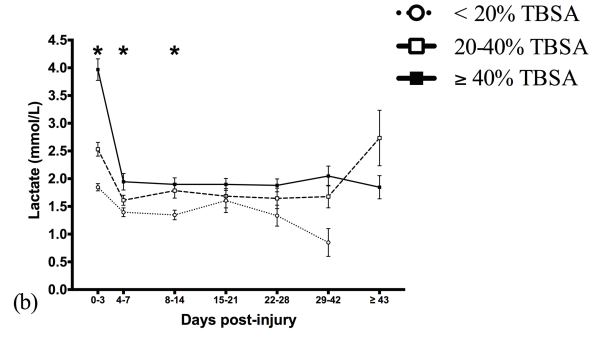
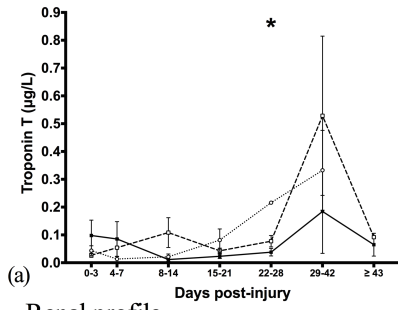


### Hepatic profile

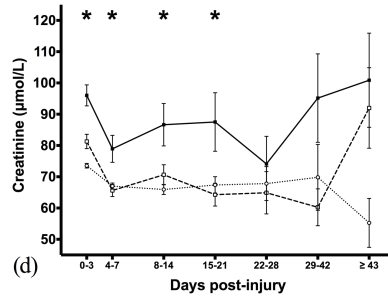
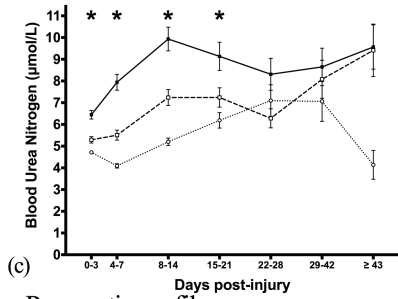


Supplemental Figure 6: Mean troponin T (A), lactate (B), blood urea nitrogen (C), creatinine (D), amylase (E), lipase (F), AST (G), ALT (H), ALP (I), and bilirubin (J) levels of adult burn patients. Error bars indicate SEM. TBSA, total body surface area; AST, aspartate aminotransferase; ALT, alanine aminotransferase; ALP, alkaline phosphatase.

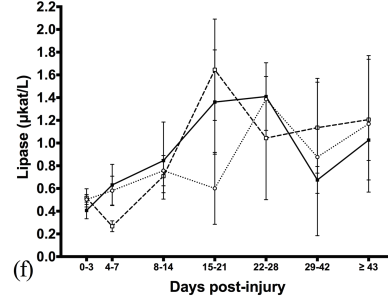
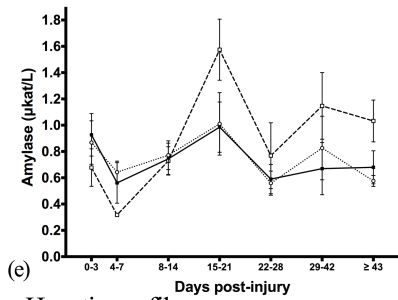
### Cardiac profile



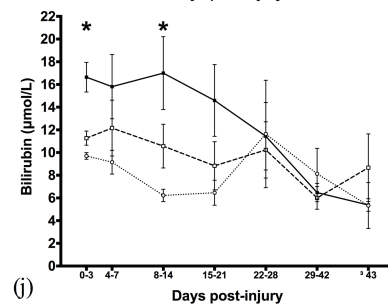
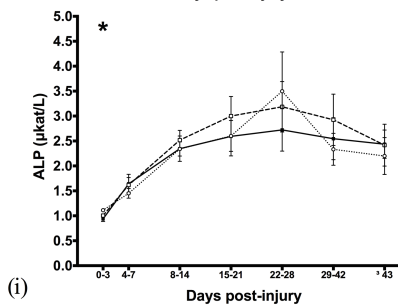
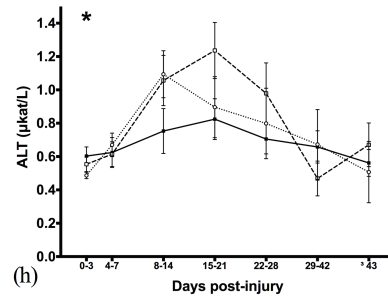
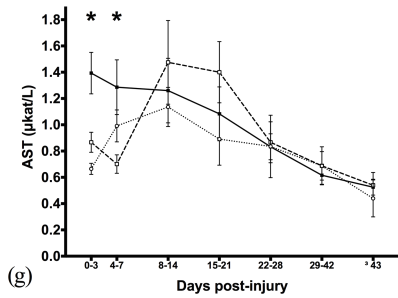
### Renal profile



### Pancreatic profile



### Hepatic profile





Supplemental Figure 7: Mean troponin T (A), lactate (B), blood urea nitrogen (C), creatinine (D), amylase (E), lipase (F), AST (G), ALT (H), ALP (I), and bilirubin (J) levels of adult burn patients by burn severity. Error bars indicate SEM. TBSA, total body surface area; AST, aspartate aminotransferase; ALT, alanine aminotransferase; ALP, alkaline phosphatase. \* = significant differences between the severity groups (ANOVA test),  $P < 0.05$ .