

# MediaWiki:Lékařská kalkulačka/script.js

**Note:** After publishing, you may have to bypass your browser's cache to see the changes.

- **Firefox / Safari:** Hold *Shift* while clicking *Reload*, or press either *Ctrl-F5* or *Ctrl-R* (*⌘-R* on a Mac)
- **Google Chrome:** Press *Ctrl-Shift-R* (*⌘-Shift-R* on a Mac)
- **Internet Explorer / Edge:** Hold *Ctrl* while clicking *Refresh*, or press *Ctrl-F5*
- **Opera:** Press *Ctrl-F5*.

```
1 $( document ).on( "pageinit", "#mainPage", function() {
2   //ABCD2
3   $( '#ABCD2 input:radio' ).change( function() {
4     var points = 0;
5     $( '#ABCD2 input:radio' ).each( function() {
6       if ( this.checked ) {
7         points += parseInt( this.value );
8       }
9     });
10    $( '#ABCD2-result' ).html( points );
11  });
12
13  //Apgar
14  $( '#Apgar input:radio' ).change( function() {
15    var apgarPoints = 0;
16    var apgarInterpretation = "normální novorozenec";
17    $( '#Apgar input:radio' ).each( function() {
18      if ( this.checked ) {
19        apgarPoints += parseInt( this.value );
20      }
21    });
22    $( '#Apgar-result' ).html( apgarPoints );
23    if ( apgarPoints >= 8 ) {
24      apgarInterpretation = "normální novorozenec";
25    } else if ( apgarPoints >= 4 ) {
26      apgarInterpretation = "lehká porodní asfyxie";
27    } else {
28      apgarInterpretation = "těžká porodní asfyxie";
29    }
30    $( '#Apgar-interpretation' ).html( apgarInterpretation );
31  });
32
33
34  //BMI
35  $( '#BMI-form' ).on( 'change', '#BMI-vyska', function() {
36    var vyska = parseInt( $( '#BMI-vyska' ).slider().val() );
37    var vaha = parseInt( $( '#BMI-vaha' ).slider().val() );
38    vyska /= 100;
39    var bmi = vaha / (vyska * vyska);
40    bmi *= 100;
41    bmi = Math.round(bmi);
42    bmi /= 100;
43    $( '#BMI-value' ).html( bmi );
44  });
45  $( '#BMI-form' ).on( 'change', '#BMI-vaha', function() {
46    var vyska = parseInt( $( '#BMI-vyska' ).slider().val() );
47    var vaha = parseInt( $( '#BMI-vaha' ).slider().val() );
48    vyska /= 100;
49    var bmi = vaha / (vyska * vyska);
50    bmi *= 100;
51    bmi = Math.round(bmi);
52    bmi /= 100;
53    $( '#BMI-value' ).html( bmi );
54  });
55
56  $( '#Child input:radio' ).change( function() {
57    var childPoints = 0;
58    var childClass = "";
59    var oneYearSurvival = "";
60    var twoYearSurvival = "";
61    $( '#Child input:radio' ).each( function() {
62      if ( this.checked ) {
63        childPoints += parseInt( this.value );
64      }
65    });
66    if ( childPoints <= 6 ) {
67      childClass = "A";
68      oneYearSurvival = "100&nbsp;%";
69      twoYearSurvival = "85&nbsp;%";
70    } else if ( childPoints <= 9 ) {
71      childClass = "B";
72      oneYearSurvival = "81&nbsp;%";
73      twoYearSurvival = "57&nbsp;%";
74    } else {
75      childClass = "C";
76      oneYearSurvival = "45&nbsp;%";
77      twoYearSurvival = "35&nbsp;%";
78    }
79    $( '#child-points' ).html( childPoints );
80    $( '#child-class' ).html( childClass );
81    $( '#child-oneYearSurvival' ).html( oneYearSurvival );
82    $( '#child-twoYearSurvival' ).html( twoYearSurvival );
83  });
84  //Clearance
85  $( '#Clearance input' ).change( function() {
86    var vek, kreatinin, vaha, urea, albumin, cg, mdrd, idealni, idealniHorni, idealniSpodni;
87    vek = parseInt( $( '#Clearance-vek' ).val().replace( ',', '.' ) );
88    kreatinin = parseInt( $( '#Clearance-kreatinin' ).val().replace( ',', '.' ) );
89    vaha = parseInt( $( '#Clearance-vaha' ).val().replace( ',', '.' ) );
90    urea = parseInt( $( '#Clearance-urea' ).val().replace( ',', '.' ) );
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91     albumin = parseInt( $( '#Clearance-albumin' ).val().replace( ',', '.' ) );
92
93     if ( vek && vaha && kreatinin ) {
94         cg = ( (140 - vek) * vaha ) / (44.5 * kreatinin );
95     }
96     if ( vek && kreatinin && urea && albumin ) {
97         mdrd = 2.83 * Math.pow( ( 0.0113 * kreatinin ), -0.999 ) * Math.pow( vek, -0.176 ) * Math.pow( ( 2.8 * urea ), -0.17 ) *
Math.pow( ( 0.1 * albumin ), 0.318 );
98     }
99     if ( $( '#Clearance-pohlavi-female' ).is( ':checked' ) ) {
100         if ( cg ) {
101             cg *= 0.85;
102         }
103         if ( mdrd ) {
104             mdrd *= 0.762;
105         }
106     }
107     if ( cg ) {
108         cg = Math.round( 10000 * cg )/10000;
109         $( '#Clearance-result-CG' ).html( cg );
110     }
111     if ( mdrd ) {
112         mdrd = Math.round( 10000 * mdrd )/10000;
113         $( '#Clearance-result-MDRD' ).html( mdrd );
114     }
115     if ( vek ) {
116         idealni = -0.00946 * vek + 2.118;
117         idealniSpodni = idealni - 0.3 * idealni;
118         idealniSpodni = Math.round( 100 * idealniSpodni )/100;
119         idealniHorni = idealni + 0.3 * idealni;
120         idealniHorni = Math.round( 100 * idealniHorni )/100;
121         $( '#Clearance-idealni' ).html( idealniSpodni + '&ndash;' + idealniHorni + ' ml/s' );
122     }
123 });
124
125
126 //Povrch
127 $( '#Povrch-form' ).on( 'change', '#povrch-vyska', function() {
128     var vyska = parseInt( $( '#povrch-vyska' ).slider().val() );
129     var vaha = parseInt( $( '#povrch-vaha' ).slider().val() );
130     var bsa = 0.007184 * Math.pow( vaha, 0.425 ) * Math.pow( vyska, 0.725 );
131     bsa = Math.round( 1000 * bsa ) / 1000;
132     $( '#povrch-value' ).html( bsa );
133 });
134 $( '#Povrch-form' ).on( 'change', '#povrch-vaha', function() {
135     var vyska = parseInt( $( '#povrch-vyska' ).slider().val() );
136     var vaha = parseInt( $( '#povrch-vaha' ).slider().val() );
137     var bsa = 0.007184 * Math.pow( vaha, 0.425 ) * Math.pow( vyska, 0.725 );
138     bsa = Math.round( 1000 * bsa ) / 1000;
139     $( '#povrch-value' ).html( bsa );
140 });
141 //Ranson
142 $( '#Ranson-typ' ).change( function() {
143     if ( document.getElementById('Ranson-obstrukcni').checked ) {
144         $( '#Ranson-label-vek' ).html('Věk &gt; 70 let');
145         $( '#Ranson-label-WBC' ).html('Leukocyty &gt; 18 gpt/l');
146         $( '#Ranson-label-glykemie' ).html('Glykémie &gt; 12,2 mmol/l');
147         $( '#Ranson-label-AST' ).html('Sérová AST &gt; 250 IU/l');
148         $( '#Ranson-label-LDH' ).html('Sérová LDH &gt; 400 IU/l');
149         $( '#Ranson-label-kalcemie' ).html('Kalcémie &lt; 2,0 mmol/l');
150         $( '#Ranson-label-hematokrit' ).html('Snížení hematokritu o &gt; 10 %');
151         $( '#Ranson-label-kyslik' ).html('hypoxémie P<sub>0<sub>2</sub></sub> &lt; 60 mmHg');
152         $( '#Ranson-label-BUN' ).html('BUN (Blood urea nitrogen) stoupl o více než 1,8 mmol/l po i.v. rehydraci');
153         $( '#Ranson-label-BE' ).html('Base excess &lt; 5 mEq/l');
154         $( '#Ranson-label-tekutiny' ).html('Sekvestrace tekutin &gt; 4 l');
155     } else {
156         $( '#Ranson-label-vek' ).html('Věk &gt; 55 let');
157         $( '#Ranson-label-WBC' ).html('Leukocyty &gt; 16 gpt/l');
158         $( '#Ranson-label-glykemie' ).html('Glykémie &gt; 10 mmol/l');
159         $( '#Ranson-label-AST' ).html('Sérová AST &gt; 250 IU/l');
160         $( '#Ranson-label-LDH' ).html('Sérová LDH &gt; 350 IU/l');
161         $( '#Ranson-label-kalcemie' ).html('Kalcémie &lt; 2,0 mmol/l');
162         $( '#Ranson-label-hematokrit' ).html('Snížení hematokritu o &gt; 10 %');
163         $( '#Ranson-label-kyslik' ).html('hypoxémie P<sub>0<sub>2</sub></sub> &lt; 60 mmHg');
164         $( '#Ranson-label-BUN' ).html('BUN (Blood urea nitrogen) stoupl o více než 1,8 mmol/l po i.v. rehydraci');
165         $( '#Ranson-label-BE' ).html('Base excess &lt; 4 mEq/l');
166         $( '#Ranson-label-tekutiny' ).html('Sekvestrace tekutin &gt; 6 l');
167     }
168 });
169 $( '#Ranson input:checkbox' ).change( function() {
170     var ransonPoints = 0;
171     var ransonResult;
172     var ransonMortality;
173
174     $( '#Ranson input:checkbox' ).each( function() {
175         if ( this.checked ) {
176             ransonPoints++;
177         }
178     });
179     if ( ransonPoints < 3 ) {
180         ransonResult = "nepravděpodobná";
181         ransonMortality = 2;
182     } else if ( ransonPoints < 5 ) {
183         ransonResult = "pravděpodobná";
184         ransonMortality = 15;
185     } else if ( ransonPoints < 7 ) {
186         ransonResult = "pravděpodobná";
187         ransonMortality = 40;
188     } else {
189         ransonResult = "pravděpodobná";
190         ransonMortality = 100;
191     }
192     $( '#Ranson-points' ).html( ransonPoints );
193     $( '#Ranson-result' ).html( ransonResult );
194     $( '#Ranson-mortality' ).html( ransonMortality );
195 });
196
197 //QTc
198 //TODO spustit funkci, pokud clovek cisla napise

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```

199 //$( '#QTC-form' ).on( 'change', '#QTC-QT', function() {
200 $( '#QTC-form' ).on( 'slidestop', '#QTC-QT', function() {
201     var QT = $( '#QTC-QT' ).slider().val();
202     var RR = $( '#QTC-RR' ).slider().val();
203     var BPS = $( '#QTC-BPS' ).slider().val();
204     $( '#QTC-Bazett' ).html( Math.round( 1000 * ( ( QT / 1000 ) / Math.sqrt( RR / 1000 ) ) ) );
205     $( '#QTC-Fridericia' ).html( Math.round( 1000 * ( ( QT / 1000 ) / Math.pow( RR / 1000, 1/3 ) ) ) );
206     $( '#QTC-Sagie' ).html( Math.round( 1000 * ( ( QT / 1000 ) + 0.154 * ( 1 - ( RR / 1000 ) ) ) ) );
207
208 });
209 //$( '#QTC-form' ).on( 'change', '#QTC-RR', function() {
210 $( '#QTC-form' ).on( 'slidestop', '#QTC-RR', function() {
211     var QT = $( '#QTC-QT' ).slider().val();
212     var RR = $( '#QTC-RR' ).slider().val();
213     var BPS = Math.round( 60000/RR );
214     $( '#QTC-BPS' ).slider().val(BPS);
215     $( '#QTC-BPS' ).slider( 'refresh' );
216     $( '#QTC-Bazett' ).html( Math.round( 1000 * ( ( QT / 1000 ) / Math.sqrt( RR / 1000 ) ) ) );
217     $( '#QTC-Fridericia' ).html( Math.round( 1000 * ( ( QT / 1000 ) / Math.pow( RR / 1000, 1/3 ) ) ) );
218     $( '#QTC-Sagie' ).html( Math.round( 1000 * ( ( QT / 1000 ) + 0.154 * ( 1 - ( RR / 1000 ) ) ) ) );
219 });
220 //$( '#QTC-form' ).on( 'change', '#QTC-BPS', function() {
221 $( '#QTC-form' ).on( 'slidestop', '#QTC-BPS', function() {
222     var QT = $( '#QTC-QT' ).slider().val();
223     var BPS = $( '#QTC-BPS' ).slider().val();
224     var RR = Math.round( 60000/BPS );
225     $( '#QTC-RR' ).slider().val(RR);
226     $( '#QTC-RR' ).slider( 'refresh' );
227     $( '#QTC-Bazett' ).html( Math.round( 1000 * ( ( QT / 1000 ) / Math.sqrt( RR / 1000 ) ) ) );
228     $( '#QTC-Fridericia' ).html( Math.round( 1000 * ( ( QT / 1000 ) / Math.pow( RR / 1000, 1/3 ) ) ) );
229     $( '#QTC-Sagie' ).html( Math.round( 1000 * ( ( QT / 1000 ) + 0.154 * ( 1 - ( RR / 1000 ) ) ) ) );
230 });
231
232 //Total Energy Expenditure (TEE)
233 function calculateTEE() {
234     var muz = ( $('#TEE-sex-m').is(':checked') )? true : false;
235     var vyska = $( '#TEE-vyska' ).slider().val();
236     var vaha = $( '#TEE-vaha' ).slider().val();
237     var vek = $( '#TEE-vek' ).slider().val();
238
239     var REE = 0;
240     if (muz) {
241         REE = 66.4730 + (13.7516 * vaha) + (5.0033 * vyska) - (6.7550 * vek);
242     } else {
243         REE = 655.0955 + (9.5634 * vaha) + (1.8496 * vyska) - (4.6756 * vek);
244     }
245     $( '#TEE-REE-HB-result' ).html( Math.round(REE) );
246
247     var AF = parseFloat( $('#input[name=TEE-AF]:checked', '#TEE-form').val() );
248     var IF = parseFloat( $('#input[name=TEE-IF]:checked', '#TEE-form').val() );
249     var TF = parseFloat( $('#input[name=TEE-TF]:checked', '#TEE-form').val() );
250
251     var TEE = AF * IF * TF * REE;
252     $( '#TEE-result' ).html( Math.round(TEE) );
253 }
254 $( '#TEE input' ).change( function() {
255     calculateTEE();
256 });
257 $( '#TEE-form' ).on( 'change', '#TEE-vyska', function() {
258     calculateTEE();
259 });
260 $( '#TEE-form' ).on( 'change', '#TEE-vaha', function() {
261     calculateTEE();
262 });
263 $( '#TEE-form' ).on( 'change', '#TEE-vek', function() {
264     calculateTEE();
265 });
266
267 });

```